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Mr Edward Gee

TO THE

BRISTOL INFIRMARY,

3 May 1834

Repts. Med. 18

Edward Lee

1921

Edward G. Lee

1832

OBSERVATIONS

ON THE
RUPTURE OF THE GRAVID UTERUS:

WITH THE SEQUEL TO

MRS. MANNING'S CASE.

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LONDON:

PRINTED FOR J. JOHNSON,
No. 72, ST. PAUL'S CHURCHYARD.

MDCCLXXXIX.

BRISTOL ROYAL INFIRMARY

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PREFACE.

IT is more than probable, I should never have farther pursued my inquiry, concerning ruptures of the uterus, if the sequel of Mrs. Manning's medical history, had not supplied some interesting and important circumstances. My first intention was to have had the particulars inserted in one of the periodical publications; but when I considered that the valuable communications of my friends, together with what I had read and observed, might afford additional information on this obscure subject, I resolved, without much altering the arrangement, to blend the new materials with the old, and give the whole to the world, with the title of OBSERVATI-

ONS ON THE RUPTURE OF THE GRAVID
UTERUS.

Although I have already experienced the public indulgence, it is not without the greatest anxiety and diffidence, that I again submit myself to its judgment. I have sometimes been fearful, lest the complacency, with which every man views transactions in which he himself has born a part, should have led me to over-rate the importance of the subject : yet after having examined the objections to delivery in uterine-rupture, with all the impartiality and attention in my power, I continue to think them ill-founded ; and consider those prejudices, which oppose the practice, to be of so dangerous a tendency, as to make the endeavour to combat and remove them an act of duty. This might have been more ably performed by other men of the profession ; but from having

been employed in the case of Mrs. Manning, it became more immediately incumbent on me to make the attempt.

To excite the attention of others, to the frequency of the accident ; and at the same time, to relieve their minds, from the dreadful impression of inevitable death annexed to it, were principal inducements to my becoming an author : it therefore affords me some satisfaction to perceive, by the ingenious publication of Mr. Goldson, and a learned paper on Extra-uterine Conceptions, by Dr. Garthshore, inserted in the London Medical Journal, that my former work has not been wholly useless. These gentlemen do not indeed think exactly as I do ; but difference of opinion is favourable to the cause of truth, when the point can be argued with temper and with candour. The spirit of investigation is rendered more accurate and more active, when

the mind meditates attack, or prepares for defence, than when engaged in the mere detail of uncontroverted facts. With these sentiments I must not repine if my opinions are disputed; but submit with a good grace, in the hope that light may be produced by the collision. Yet I so well know, how liable men are to be hurt by strictures on what they have advanced, that I have most studiously avoided whatever could bear that construction; and hope, that on all occasions, I have expressed myself in terms not offensive, even to those, from whom I have been obliged to dissent.

The cases which I have introduced by way of illustration, whether from books, or the information of my friends, are given with as much fidelity as the nature of an abstract would permit: for it has been my particular wish, not only to insert every circumstance

that had any relation to the point in question; but even to preserve the author's own mode of expression, when that was possible.

If I should ever have reason to suppose, that what I have written, has been productive of benefit to those, whose safety and health are the principal objects of my attention, I shall recollect the doubts and fears of the present moment, without regret: and should the world approve the motives which induced me to publish this work, and accept them as some excuse for deficiency in the execution, I shall have obtained all the favour, I have dared to expect.

*Saville-Row,
March 1, 1789.*

OBSERVATIONS

ON

RUPTURES OF THE UTERUS, &c.

OF the accidents to which women are liable from pregnancy or parturition, there is none that excites more alarm, or is attended with more danger, than a rupture of the uterus : Van Swieten says, “ *Lethali plerumque cum eventu.*” The situation of the sufferer has indeed been at all times considered as so very hopeless, that she has usually been left to perish, without any efforts being made to relieve her ; and such a spirit of despondency must have taken possession of the physicians and surgeons of Paris, who were consulted in the case extracted from Saviard, and of those of Straßburg in that published by Pistor. The peculiar function and importance of the injured organ,

at the time of the accident, could suggest none but the most gloomy apprehensions ; and if it was likewise believed to be a case that very seldom occurred, professional men would not be encouraged to attempt much, where the occasions were so few, and the event, at the best, so very doubtful : it is only by supposing them to have decided under such unfavourable impressions, that we can account for women having been left to die, unassisted. But the practitioners of these times, possessing authorities of weight sufficient to prove its frequency, will no longer be justifiable in following such examples, if the possibility of recovery can once be satisfactorily established.

There can be no doubt entertained of the frequency of ruptures of the uterus, when it is known that more than twenty cases, in which the fact was demonstrated by dissection, have been observed in London, within the last twenty years. In Paris, Gregoire mentions his having seen sixteen in a practice of thirty years ; and

by Bonetus, Hildanus and others, we are supplied with a number of similar instances. But the greatest number of these histories having been preserved as records of remarkable rather than instructive facts, many important circumstances have been omitted or overlooked, from a presumption that the case was without a remedy.

A considerable proportion of the deaths which have happened suddenly in the time of labour or soon after delivery, may probably have been in consequence of a laceration of the womb or its appendages. Of some, the cause has not been discovered till after death, and of many more has never been explained, from the bodies having been interred without anatomical inspection. Even when previous symptoms have afforded the strongest reason to believe that the uterus was the part affected, the precise situation and extent of the injury has still been undetermined, because it has been impossible to obtain leave to make the necessary examination.

From inaccuracy therefore on the one part and prejudice on the other, numberless opportunities of acquiring correct ideas on this subject, have been neglected or lost ; and the term *rupture of the uterus* has been applied to all cases, in which the whole or any part of the fœtus, supposed to have been contained in the womb, had made its way into the cavity of the abdomen.

It is remarkable that writers on the subject of midwifery, of an early and of a later date, should all agree to admit a principle to which their practice is in direct opposition. They grant that wounds of the uterus are not certainly mortal ; yet when a fœtus has wholly escaped into the cavity of the abdomen through a rupture, almost with one consent give up the case as desperate. When it can be known that part of the child remains *in utero*, they indeed recommend its extraction by instruments, or by turning ; but suggest no method to relieve in the first case, except the Cæsarian section. Heister says : “ *Tunc etiam ven-*

tris sectio, quia aliter exire aut eximi nequit, atque alias mater et fœtus, brevi moriuntur." It is likewise Van Swieten's opinion : "*Si, utero rupto, totus infans in cavo abdomine hæreat, tunc partus impossibilis est, et sola superest sectio Cæsarea.*" These quotations will serve to prove what were the sentiments of medical men respecting this accident, in the period immediately preceding the present ; since they had nothing to recommend but an expedient almost as barbarous and as hopeless, as abandoning the patient to her fate,

This supineness and despondency in cases of ruptured uterus, has acquired in our time, additional influence from the opinion of the late DR. HUNTER. It seems to have been one of those, in which he was averse to attempt any thing from an unwillingness to give pain, where he despaired of being able to do good. Early impressed with a conviction of the pernicious consequences which might result from too frequently recurring to the application of ar-

tificial means in the practice of midwifery, he never failed to inculcate by precept and example, a reliance on the action of the natural powers. But though deservedly in the highest estimation for his knowledge, correct judgment, and long experience, there was in his temper a caution approaching timidity, which, on some occasions tended to defeat the good effects which his great abilities might otherwise have produced : for this extreme caution, by suggesting a possibility of doing too much, frequently influenced him to discourage endeavours, which a decided conduct might have rendered successful. In all professional questions, his character gave great weight to his opinion ; and I believe, there is no doubt, that most of his cotemporaries acquiesced in that which he held respecting lacerations of the uterus. Indeed, my friend DR. DENMAN, with a frankness and candour that does him honour, has acknowledged as much, in the case which he formerly gave me leave to publish ; and I have sufficient reason to believe that the

same sentiments were generally held by professional men.

The recovery of Mrs. Manning excited in my mind a train of more chearful ideas ; and induced me to examine attentively how far this despondency was warrantable. Whatever may have been the effect of my researches in a practical view, I have been gratified in the opportunity of testifying my respect to the public, by communicating a case extraordinary of its kind ; and my satisfaction is much increased by being now able to give the sequel of so remarkable an history.

THE CASE OF MRS. MANNING.

On September the 12th, 1784, about noon, I was desired by one of the midwives of the Lying-in-charity to visit Mrs. Manning of Denzel-street, Clare-market. She had been seized the night before with slight labour pains ; these had continued regular

from that time ; and the membranes had been ruptured eight hours : yet though the os tinæ was considerably dilated, the child did not advance. The woman was become extremely restless, complaining of excessive pain in the region of the ossa pubis ; her looks were wild, threatening convulsions ; and the fears of both midwife and attendants excited to the highest degree by these appearances. The head of the child, tho' plainly to be felt, was not engaged within the brim of the pelvis : she seemed to suffer agony during the action of the pains ; yet these did not force the child strongly against the os tinæ, which was soft and yielding. Each return of pain caused her to wreath and twist, as if suffering from violent cholick, rather than from the urging throes of common labour ; but her pulse was calm and regular, nor did she make any particular complaint, except of the pain in the region of the pubis. This being the state of the case, and there appearing no reason to induce me to precipitate the delivery, I directed the patient to be kept as

cool as the extreme heat of the weather would permit; ordered the midwife to watch the progress of the labour, without much touching; and to be guided by circumstances, in sending for me.

This woman was in stature low; her limbs small, and her complexion pale and fallow; her constitution was naturally weak and delicate, but in general healthy; she was above thirty years of age, and this was her fourth pregnancy; two of her children were living, and her former labours had been very lingering.

About nine o'clock the same evening, the midwife informed me,—‘ That there had been a discharge of blood from the vagina some time after I left her, which however did not continue; that the pains had been more severe for an hour or two, and apparently with some effect; but had ceased about half an hour after six o'clock. From that time there had been no return of labour pains; reaching, with excessive

craving for drink had come on ; and the poor woman seemed at some times like one frantic, at others almost lifeless.'

I visited her immediately, and was truly alarmed by her appearance. Her countenance was pale and ghastly ; her face was lengthened and bedewed with cold sweat ; her pulse was scarcely to be felt ; her breathing was short and quick, with great anxiety ; the only pain of which she made any complaint, was that in the region of the pubis ; her nausea and thirst were continual, and the returns of the reaching very frequent.

By examination in the common way, I could distinguish nothing, except a round moveable substance, which I supposed to be the head of the child ; but being able to reach it only with the points of my fingers, I could not determine with any certainty what it was. The woman appearing to be *in extremis*, my mind was so wholly occupied by her danger, as to preclude all reasoning with respect to the cause. Imme-

mediate delivery seemed to promise the only chance of relief ; which though slender, I resolved to afford her by turning the child. There was no difficulty in passing my hand ; and the substance which I had supposed to be the child, fled before the tips of my fingers : by following it, I at last perceived my hand was in a cavity, which in no sort resembled the uterus. I was then forcibly and painfully struck with the nature of the case ; and on examining all round, could with certainty determine that my hand was in the cavity of the abdomen ; the child lying on the fore part ; on the back part, the contracted uterus like an oblong ball, and the intestines hanging among my fingers. It is not easy to imagine how miserable I felt at this moment. No hope of doing good to the woman, from the usual event of such cases ; no possibility of consulting with any of my brethren ; and a necessity of determining instantly, how I was to proceed. I decided in favour of immediate delivery ; my hand being in contact with the child ; the feet easily to be found ; and

no possible advantage to be expected from delay : the death of the patient was what might reasonably be expected to happen ; and I was well aware of the dreadful impression which the death of a woman undelivered, would make upon the minds of others. I met with no obstruction to the turning and extraction of the child, except in the passage of the head through the brim of the pelvis. While my hand was in search of the feet, I thought I could perceive that the placenta was likewise in the abdominal cavity ; therefore expected it would be easily brought away : but in this I was mistaken ; for it had so clung to the intestines, that I was under the necessity of again introducing my hand to detach it. This was not difficult, and afforded me an opportunity of being still better instructed in the nature of the injury. The uterus seemed to have been ruptured transversely, on the lower and fore part, some distance above where the vagina is connected with it ; and was more contracted in its size than I thought possible, in

the short space of time which had elapsed since the accident. The hæmorrhage was not greater than is usual in a common labour; but the woman complained that she still felt the same severe and unremitting pain about the lower part of her belly, as before the extraction of the child. With an intention to alleviate this pain, I prescribed an opiate; directing the chamber to be kept airy and cool, and her drink to be mint tea or gruel. I left her about eleven o'clock, with very little expectation of finding her alive in the morning; signifying to her friends the great danger of her situation; and enforcing the necessity of keeping her perfectly undisturbed and quiet.

Sept. 13. She was quite sensible, though she had been very restless through the night. The nausea and thirst had greatly distressed her during the first part of it, but became more tolerable towards morning; and the reaching after some hours, had neither been so violent or so frequent in its returns. Her complaint

was no longer of her belly, but of her breast, pointing to the seat of the heart. The anxiety still affected her considerably; she had frequent sighings; and her pulse was quick and small, but very regular. I directed the opiate to be given in a saline mixture, with a little cordial confection.

—— 14. Curiosity had procured her too many visitors the day before; and the reaching had returned in the evening to a violent degree, with great heat and restlessness. Towards morning the febrile paroxysm terminating in a profuse sweat, the vomiting had ceased, and she had slept four hours. Her pulse when I saw her, was calm and regular, the pain and anxiety much abated.

—— 15. Her night had been tolerably quiet: her pulse made about one hundred strokes in a minute with a considerable degree of firmness; so that my friend, DR. OSBORN; who saw her this day said, she had not a dying pulse. She had voided

her urine freely and regularly from the day of her delivery ; but not having had a stool, I directed she might take a solution of the cathartic salts.

— 16. She had two stools the preceding evening before the salts could be given ; complained of griping ; but in other respects was much the same.

— 17. A diarrhœa had come on in the night, with great flatulency, and a violent pain from the pit of the stomach, along the whole intestinal canal. The patient complained likewise, of pain and soreness extending across from ilium to ilium. Her pulse was quick (one hundred and ten) with a degree of fulness ; her belly felt tumid and somewhat hard ; she had thirst, and a tendency to delirium. I had her bled to eight ounces, and directed she should, every two or three hours, take a solution of the cathartic salt in mint-water with a few drops of laudanum.

— 18. The delirium was gone off, and the abdominal pain had abated soon after the bleeding. The blood was not fizzy. She had only one stool in the night; yet her pulse was quicker (one hundred and twenty) than it had ever been. Dr. Hunter, who was so kind as to accompany me occasionally in my visits, saw her this day: we thought it unnecessary to repeat the bleeding, but the use of the solution was continued.

— 19. She had only two motions in the last twenty-four hours; nor did she complain of pain, excepting when there was an inclination to go to stool. She had slept some hours in the night; her tongue was moist, and her pulse one hundred and ten, with greater strength and firmness in the strokes, than the day before.

— 20. Having had a return of the pain and purging in the night, an opiate glyster was injected in the morning; after

which these complaints ceased. Her pulse was about ninety six.

— 22. Her nights had been quiet, and her belly natural.

— 24. She continued to have some tendency to diarrhœa, with a considerable degree of pain at the time of each motion : yet on the whole she seemed to gain ground ; having a pulse regular, firm, and making ninety strokes in a minute ; a tongue moist and clean, without thirst. She had been taken out of bed this day, with less inconvenience than could have been expected.

— 26. She had still slight returns of griping pain in the bowels ; but without purging oftener than once in twenty-four hours.

The lochial discharge had been from the beginning, regular and moderate : that was now gone off ; but what was very

singular, there had never been the smallest appearance of a secretion of milk.

— 29. The pain and disorder in her bowels seemed now to have entirely left her. She had a firm, regular pulse, at seventy-two strokes in a minute; her nights were easy and quiet, her belly natural. Indeed she was this day so perfectly free from complaint, that I could no longer doubt of her recovery.

October 3. She was now able to get up every day; and only complained of general weakness, with a pain in the back when sitting, and of an inability to stand upright.

— 14. In the course of the last week she had considerably recovered her strength; and no longer complained of uneasiness when in an erect posture.

— 27. She walked from Clare-market to my house in Bedford-street, Bedford-

square, without any complaint or inconvenience, except from a palpatation of the heart, on any attempt to move quick.

As some of my friends had been desirous of examining the state of the parts after a recovery so unexpected, I wished much to procure them the opportunity; but the shyness and delicacy of the woman defeated my intentions: for when she called on me to return thanks, it was with difficulty I could prevail on her to permit Dr. Osborne to examine *per vaginam*. He thought the os tinæ somewhat more open externally, than it usually is; I fancied, I felt rather more fulness than is common about the *cervix uteri*; but we both agreed that there was nothing in the touch so different from what is observable in the natural state, as to have excited any idea of previous disease, had not we known the accident which had happened six weeks before.

The patient took no other nourishment during the first week, than whey, milk, and plain gruel. In the next period of ten days, her diet was only mended by having a raw egg beat up with water and a little sugar. In the third week she began to take broth and light pudding; and came afterwards, by degrees to a fuller diet.

THE SEQUEL OF MRS. MANNING'S
HISTORY.

The first return of the menstrual discharge which happened about the beginning of January 1785, was less than usual; but at the two subsequent periods, it was regular both as to time and quantity. In the month of April following, she began to be alarmed, from a failure in the customary appearance; and very soon had reason to believe that she was again pregnant. During the early months, there was nothing strikingly different from what she had usually felt in a similar situation, except

a slight uneasiness in the left hypogastric region, a little on one side of the symphysis pubis. This uneasiness increased as the pregnancy advanced ; and at last, about the sixth month, compelled her to apply to me for advice. She described her complaint to be a pain beginning in a point between the navel and left groin, extending to some distance around, with a sensation of soreness and burning heat, and as being equally troublesome in bed or up. Her pulse had some degree of hardness, but did not make more than seventy-eight strokes in a minute : she complained too of being very costive.

I directed some blood to be taken from the arm, an opening medicine to be given occasionally, and a plaster of diachylon and empl : vesicat : to be applied to the part which she described as the seat of the pain. The pain still increasing in degree, and the pulse becoming fuller and more frequent, the bleeding was repeated ; and I ordered she should take five grains of James's

powder with an opiate, every night ; and in the morning, ol : ricini in a dose sufficient to keep her body open. This plan was pursued for a month, in the course of which the pain gradually abated ; and for a fortnight previous to the 24th of November 1785, she had been tolerably free from complaint. On the evening of that day, a violent reaching came on, which after continuing some time ceased spontaneously, and she passed a good night ; being then, as nearly as we could reckon, in the eighth month of her pregnancy.

Nov. 25. I had notice that she was in labour ; and about eleven o'clock that night I found her with regular pains, the os tincæ completely dilated, and the membranes, containing a considerable quantity of the *liquor amnii*, almost as low as the os externum : but the position of the child could not be ascertained by the usual mode of examination. The dangerous situation of this woman in her last labour, fully justified my fears for her present safety ;

and that she might have every chance of doing well, which could be derived from skill, judgment, and experience, I had previously engaged Dr. Denman and Dr. Osborn to favour me with their attendance whenever she should be taken ill.

Having met and considered the present and former circumstances of the patient, our opinion was decidedly in favour of immediate delivery : both as it could be done with ease, and as we were fearful the uterus might again suffer from being allowed to act for any considerable time, after the *liquor amnii* was discharged. The turning and extraction of the child I performed without delay ; the placenta soon followed ; and no mark of former injury was to be distinguished by any examination I thought myself at liberty to make. The child was alive, and the mother recovered, without having one unfavourable symptom ; the milk having been secreted in a quantity sufficient to enable her to become a good nurse to the infant.

In 1787, Mrs. Manning was again pregnant; but remained perfectly free from complaint till the seventh month, when the pain and uneasiness which had so tormented her on a former occasion, returned with considerable violence; being now felt higher than before; nearly in a line with the navel, and a little towards the left side.

The same means were used as before, with equal success; and the woman continued well to February 20, 1788, when she felt the slight pains of labour. These were regular during that night and the next day; and becoming stronger in the evening, she requested me to visit her. There were intervals of ten minutes or more between the pains; they were of considerable length, but not very urgent: the os tinæ was fully dilated, but high; the membranes distended by the liquor amnii, were to be felt on the return of each pain; but no part of the child to be distinguished.

This woman was become to me a very

interesting object ; the event of the last labour had been as favourable as could be wished ; the recovery speedy and complete ; and more than three years having elapsed since the dreadful accident, my apprehension of the uterus suffering from the continuance of its own action, was greatly diminished. Encouraged too, by the history of the Negro woman, No. XXII. it was agreed on consulting with some medical friends, that it would be allowable and proper to trust the event to the natural efforts ; attentively watching the progress of the labour, to be better able to obviate danger, should any alarming symptom occur.

Not being at liberty to remain with her myself, after being satisfied that the head of the child presented, I left her under the care of an experienced midwife ; directing that she might acquaint my colleague DR. SQUIRES, whenever the pains became urgent ; and in the mean while to avoid every thing that was likely to rupture the membranes before the natural time, believing the

uterus less exposed to injury, while acting on an uniform and yielding surface. About four o'clock in the morning, of February 22, the membranes gave way, a great quantity of fluid was discharged, and there was a total cessation of the pains for two hours. When these returned, their urgency gradually increased, the head descended slowly, and with it the navel-string; but in every other respect, the labour was natural. I visited her about one o'clock at noon, when the pains were become frequent and forcing; the pulsation in the umbilical cord continuing strong, and the bones of the child's head seeming disposed to lap over each other. Dr. Squires, who came about this time, thought with me, that the prospect was encouraging; but, should the circulation between mother and child be stopped while there were doubts of a speedy delivery, we were both of opinion it would be most adviseable to extract the child, to spare the mother any further risk. Being obliged to attend elsewhere, I could not myself wait the termination of the labour; which hap-

pily took place in a natural way about three o'clock, under the management of my colleague; the child being alive and the mother safe. The placenta came away in less than half an hour; immediately after which, she complained of a most agonizing pain at the bottom of her back; her pulse became small, frequent and fluttering, was at last hardly to be felt; and she was seized with violent vomiting; which, after continuing an hour ceased, and in the evening, when I visited her, she had no complaints but such as are usual in her situation.

Feb. 24. She had some pain in the left side, between the navel and groin; for which she begged to have her plaster renewed. She was directed to use an opening mixture occasionally; and recovered very rapidly from that time.

Recovery under circumstances so extraordinary, as have been related in the first part of Mrs. Manning's history, will be ad-

mitted by every one as an uncommon event. It is reasonable to suppose that it would strike me most forcibly, who was immediately concerned ; and indeed led to this conclusion :—‘ That it would in future be criminal to give up such a case as hopeless ; and inexcusable to risk the performance of a cruel and dangerous operation, while there were in our power means less hazardous, which afforded some prospect of success.’

It is seldom allowable to draw practical inferences from a single instance ; but when a disease very rarely occurs, it becomes necessary to lay particular stress on a case which happens to be exactly in point. The history I have related is of that kind ; but not to neglect strengthening my opinion by every collateral support I can procure, I mean to give abstracts of such cases from medical writers, or from the information of my friends, as I think will give additional weight to my conclusions ; numbering them that they may be more easily referred to, when their authority is necessary to my subject.

No. I. A case mentioned by HEISTER as communicated to him by RUNGIUS, a respectable surgeon of Bremen. Without relating any previous circumstances, he says, “ That after the extraction of the foetus, though the intestines were distinctly felt through a rupture of the uterus, and kept up by the hand of the surgeon (Run-
gius) till that was sufficiently contracted to prevent their falling into its cavity, yet the woman happily recovered.”

No. II. PEU, in his *Practique des Accouchmens*, page 341, relates the history of a case, “ In which the uterus had been torn and pierced in several places, by violent attempts to deliver; yet the patient was cured in six weeks.”—I am well informed, that the late Dr. Hunter was consulted in a case exactly similar, which had as favourable a termination.

No. III. DR. HAMILTON, in his *Outlines of Midwifery*, page 344, gives the following account in a note: “ That he was

called to a patient who had been in labour from the morning to the afternoon, under the care of a midwife ; the shoulder of the child presenting in an oblique direction at the brim of the pelvis. The woman's situation seemed to require her being immediately delivered ; which he at first attempted by turning. In his trials for that purpose, he perceived the uterus to be ruptured ; and that a shoulder and arm of the child had protruded into the cavity of the abdomen ; but having reason to change his intention, with respect to turning the child, he delivered at last with the crochet. The uterus was ruptured at the superior lateral part of the cervix, and the rent continued downwards to the very edge of the os tincæ. He introduced his hand to remove the placenta ; and at the same time reduced a portion of intestine, that had forced through the wound of the uterus, even into the vagina ; which gave him an opportunity of examining how amazingly the rupture was diminished by the contraction of the uterus. There was a discharge of matter on the

cloths, from the fifth day, which gradually lessened; and her recovery was nearly as good as if no extraordinary accident had happened."

No. IV. M. LA MOTTE, *Observation* 312, Paris Edit. 1722, says; "He was called to a woman, who had been in labour two days: he found the pains were gone, though for eleven or twelve hours they had continued frequent, long and violent. The infant, which in the beginning had been strong and vigorous, after a struggle so dreadful as to throw the mother into convulsions, had no more been felt to move; and from that time, which was four or five hours before he saw her, the pains of labour had likewise ceased. The midwife informed him, that the child had from the first presented fair, though situated high; and had neither changed its presentation or advanced, during the action of pains, which appeared sufficiently strong to have brought about delivery. On examination, he felt the head of the child at

the upper part of the pelvis, but not at all locked among the bones. Her belly was hard, much stretched and painful; her pulse very weak, and her stomach would retain nothing that was given. He turned and extracted the child by the feet, without any difficulty except in disengaging the arms and head. The placenta being brought away much torn in the middle, he was desirous to ascertain the nature of the mischief; and introducing his hand for that purpose, it passed through a rupture of the uterus into the cavity of the abdomen, among the intestines. The child was dead, which did not surprise him so much, as that the woman should live three days after such an accident, during which time she vomited incessantly." He does not mention hæmorrhage as an attendant symptom; nor say, that the body was opened after death.

No. V. LA MOTTE, *Observation* 313, relates; "That a woman who had born nine children without any accident, and

often without the assistance of a midwife ; in the tenth was taken ill about midnight, the labour proceeding as usual till the bursting of the membranes, when a hand presented. He was then sent for, found the patient very low, and the pains entirely ceased ; nor could he readily account for the extreme weakness in a person naturally vigorous, who had been ill but seven or eight hours, had suffered the strong pains only an hour and a half, and these without convulsions or hæmorrhage. But introducing his hand to deliver by turning the child, it passed into the cavity of the abdomen, where he found the feet, which with part of the body of the child had escaped through a rupture of the uterus. The placenta, in this patient's case, was likewise much torn ; and she lived four days after delivery. On inspecting the body after death, the uterus was so much contracted, that the rupture, which had at first allowed the whole body of the foetus to pass into the abdomen of the mother, would not then admit more than the tip of a finger." The

delivery, in this case, seems to have been performed sooner after the accident than in No. IV. ; and he accounts for the very weak state in which he found the woman, not only from the laceration of the womb and placenta, but *a la perte de sang qui en est inseperable*.—La Motte is a sensible and judicious writer, and relates his observations with a plainness and candour which claims our perfect confidence ; I was therefore surprized to find his veracity called in question by Mr. Goldson, merely from having recorded a case which militated against an opinion he had adopted. Highly as I am disposed to think of Mr. Goldson, I cannot give up La Motte ; of whom the respectable Baron Van Swieten says, “ *Qui candidè adeo narrat, quæ observavit.*”

While I was engaged in arranging my observations, another case of ruptured uterus occurred ; which, though the event was unfavourable, the gentleman who attended, permitted me to publish ; from a conviction that improvement is alone to be expect-

ed from a comparifon of various facts ; and that a fuccefsful cafe does not always afford the moft ufeful leffon.

No. VI. “ A young woman was taken in labour of her third child, on the 11th of December 1784 ; and the pains having continued for twelve hours, the membranes broke, when the os tincæ was fully dilated. At the time the gentleman faw her, which was three hours after the difcharge of the liquor amnii, the head was beginning to enter the pelvis, the pains being regular, frequent, and very ftrong. Her pelvis was narrow ; her former children had been born dead ; but as ſhe had been delivered of one by the natural pains, he was induced to hope a like event. The pains increafed in violence for fix hours, when they fuddenly abated in force ; but continued to recur frequently, though ſhort and unavailing. It does not appear that ſhe had any particular complaint at the time the pains abated, except that her fpirits flagged very much. On the 13th, at eleven o’clock in

the forenoon, eight hours after the strong pains had left her, the pulse was calm and regular ; she was disposed to sleep, and complained of nothing but a pain of the left side below the ribs ; those of labour having almost entirely ceased. The head of the child was very little advanced, but part of the umbilical cord was within reach, and without pulsation. He then determined to open the head of the foetus, but thought it prudent, for the present, to encourage the disposition to sleep. At eight o'clock in the evening, the patient's pulse was too weak to be felt ; she was cold and pale ; and the pain of which she complained, was now in her belly. Attempting to perforate the cranium, the child suddenly gave way to the force he applied ; no part of it was any longer to be felt ; and the patient complained of a sensation as if life was going from her. Being then convinced that the uterus must be ruptured, he immediately introduced his hand, and discovered the whole child floating in the cavity of the abdomen. Finding the feet very readily, he proceeded to

extract, which he did without difficulty, till the head came to the narrow part of the pelvis, where it resisted his utmost efforts, and obliged him to make a perforation behind the right ear ; into which, introducing the blunt hook, he completed the delivery. The placenta was in the cavity of the abdomen, wholly detached from the uterus. The woman was quite sensible, complained of great lowness, and of pain in her belly ; her pulse small and fluttering ; her breathing short ; but she was not restless. The rupture appeared to be near the cervix. She slept a little during the night ; but next day complained much of abdominal pain, and an excessive sinking within her, with difficulty of breathing : her lips were livid, her belly swelled, and seventeen hours after delivery, she expired." He was not permitted to inspect the body after death.

In this case, there is little doubt but the rupture of the uterus happened when the force of the pains abated and the woman's spirits flagged ; which was sixteen or seven-

teen hours before the extraction of the child. The continuance of the pains, though these were short and ineffectual, and the retention of the head within the brim of the pelvis, were circumstances very likely to destroy all suspicion of the nature of the accident ; more especially as the patient had a calm, regular pulse, and an inclination to sleep, without the usual concomitants of ruptured uterus. When we recollect that the body of the child must have been many hours among the viscera, it is not an improbable supposition, that the difficulty of breathing, the pain and swelling of the belly, and death at last, were the consequences of peritoneal inflammation.

No. VII. A woman of a delicate and nervous habit, in the eighth month of her tenth pregnancy, being taken in labour, the membranes ruptured in the evening, and for some hours she had regular, bearing pains ; particularly affecting the parts which correspond with the brim of the pelvis.

The os tinæ gradually dilating, it was expected that the labour would terminate naturally in a few hours. The pains, which had much the appearance of spasm, and never seemed very urgent, were yet so distressing as to make her cry out and express herself as if suffering from severe cramps.

Anxiety and oppression about the præcordia, came on after some time, accompanied with nausea and vomiting. She complained of great tenderness of the abdomen, with inability to rest on the right side; and tho' the child was no longer to be felt *per vaginam*, yet in the umbilical region, its limbs were plainly to be distinguished thro' the integuments. These circumstances left little doubt of the nature of the case; but the symptoms being uncommonly mild, and the os tinæ appearing to have contracted, the gentlemen in consultation, of whom the late Dr. Hunter was one, seemed unwilling to advise the extraction of the fœtus either by the natural passages, or by the Cæsarian section.

On the third day, she complained of twitchings through the whole abdomen, and of great uneasiness from a lump in her belly, which fell from side to side, seeming to burn as it moved. The friends then becoming anxious and uneasy, Mr. PINKSTONE, a practitioner of skill and experience, was joined in consultation, who gave his opinion for the patient being delivered, as affording the most probable chance of safety, whatever might be the nature of the case. This advice was followed; and though there was some resistance from the os tinæ to the introduction of the hand, yet the patient bore the delivery well, and no hæmorrhage ensued. The placenta adhered to the lower part of the contracted uterus, near the cervix.

From the time of delivery, a variety of symptoms occurred; sometimes alarming, sometimes encouraging. She vomited porraceous bile, complained of tenderness and tension of the abdomen, and had frequent fætid stools. After some days, her pulse

was diminished from one hundred and twenty strokes in a minute, to ninety ; but she had returns of diarrhœa, till the placenta came away. This happened a week after the extraction of the child ; from which time she seemed to get better, gradually recovering strength. She underwent many changes till the fourth week, when becoming impatient of mending so slowly, she insisted on being conveyed into the country, and was almost immediately sensible of a return of the burning heat of the abdomen. On being moved, nausea followed, with a discharge of blackish coloured fluid from the stomach ; which continued during the few hours she lived after this new attack. Her death happened twenty-six days from the time the accident was supposed to have taken place ; and twenty-three from the extraction of the child.

On dissection, a considerable quantity of matter was found in the abdomen : the intestines were glewed together, and in some places compacted into a firm mass : they

adhered every where to the furrounding parts, and were covered by a coat of coagulable lymph. The rupture was on the anterior part, near the broad ligament ; being then three inches and a half in length. The uterus shewed no signs of disease ; no præternatural looseness of texture, or thinness in its substance ; and was much contracted. There was no pus or granulations apparent on the lacerated edges of the wound ; which seemed dry and disposed to skin over, without uniting.

No. VIII. PEU, Book I. chap. viii, page 79, has preserved the history of another case of ruptured uterus, in which the whole of a child had passed into the abdominal cavity, except one foot and the umbilical cord. “ The os tinæ being so open as readily to admit the hand ; with a view to save the child, for of the mother he had no hopes, he slipped the noose of a fillet over the foot which remained in the uterus ; and having pushed that up into the cavity of the abdomen, where he found the

other, he grasped both and returned them through the rupture, in such a direction as to avoid, if possible, increasing the extent of the laceration. Having brought the feet to the os externum, he disengaged the arms, and then *d'un seul tour de main*, completely extracted the fœtus. The placenta adhered to the internal surface of the womb by its whole circumference, which being detached, he again introduced his hand into the abdominal cavity, to remove the coagula of blood." This woman lived to the eighth day, during six of which she was perfectly sensible; and seems to have sunk at last in consequence of the excessive hæmorrhage; but he does not mention that the body was examined after death.

No. IX. M. STEIDELE, in his observations *de rupto in partus doloribus Utero*, relates, " That he was called to the assistance of a woman who had been in labour ten or twelve hours; during which time she had particularly complained of a violent pain in

the region of the os sacrum. The child, he was informed by persons attending, had presented favourably ; and that the head had even entered a considerable way within the brim of the pelvis. The pain in the region of the os sacrum had continued without intermission ; and the throes had been strong and regular till, after one uncommonly violent, they ceased, and a considerable hæmorrhage ensued. During this pain, a cracking noise was heard by the people present. The membranes had given way at six o'clock in the evening, some hours before this circumstance occurred. Mr. Steidele saw her the following day, when the head of the child was no longer to be felt ; and the woman was become extremely low, with a very feeble, quick and intermitting pulse. She could not lie down from fear of suffocation, and had so many alarming symptoms as induced M. Steidele to think immediate delivery to be absolutely necessary. He introduced his hand through the os uteri, without perceiving any parts of a child till it reached the fundus, when he

could distinguish the feet and abdomen, but felt nothing of the head. He brought down the feet with ease ; found some difficulty in extracting the rest of the fœtus ; but the placenta came away very readily. The appearances of extreme weakness and danger, did not diminish in consequence of delivery ; and the patient complained of a foreness of the right side of the belly, which was intollerably painful to the touch. The following day, the hæmorrhage had abated ; the pulse became stronger, and the natural warmth returned ; yet many threatening symptoms continued. The uterus was thought to be ruptured.

During the days she survived the extraction of the child, she was afflicted by a variety of most unfavourable symptoms ; intense thirst, vomiting, great pain, tumour and tension of the belly, fœtid stools, laborious breathing, watchings, excessive weakness, delirium, with a pulse very feeble and rapid." The length of time this woman lived after delivery is not very accurately

stated, but appears to have been about a week.

When the abdomen was opened, a great quantity of bloody water and fœtid air was discharged; the omentum was thickened; the stomach swelled; and the intestines greatly inflated with air, having their external surface tinged with a yellow colour. An extensive rupture was discovered on the right side of the uterus; and its substance near to the lacerated part, was gangrenous and thinner than usual.

The symptoms after the abatement of the hæmorrhage, are almost all deducible from inflammation in the cavity of the abdomen: and the twelve hours which seem to have intervened between the rupture of the uterus and the delivery of the woman, will enable us to account for these, and the appearances on inspecting the body.

The livid and discoloured marks often observed on the uterus after death, are not

certain signs of gangrene having begun. In examining the bodies of women who have died soon after delivery, the cervix and os uteri have often a livid hue; probably in consequence of the pressure which these parts sustain during the action of the pains. This discolouration is sometimes evident, even when death happens so late as the twelfth or fourteenth day after delivery; but is not to be considered as gangrenous, unless the parts are likewise soft and spongy.

No. X. Communicated by DR. GARTHSHORE, contains an account of appearances observed on opening the body of a woman, who had died undelivered, after having been two or three days in labour under the care of two midwives. From the previous symptoms, there was reason to suspect, that the uterus had been ruptured early in the labour; but these did not at first give any alarm. The body was examined in the presence of several medical gentlemen; and the first view on opening the abdomen, exhibited the exact semblance of an extra-uterine

conception. But, inspecting the uterus more closely, a rupture was discovered on its forepart, through which the fœtus and secundines had passed into the abdominal cavity. The extent of the laceration was then so diminished by the contraction of the uterus, as to appear much too small for such a purpose. It was remarkable, that wherever the membranes or placenta had come into contact with the internal surface of the abdomen, they adhered with a considerable degree of firmness; and that on the coats of the intestines, there were every where signs of inflammation.

No. XI. POUTEAU, page 487, relates, “ That a woman who had been some time in labour, under the care of a midwife, was seized with hæmorrhage; on which the child, which had before presented with the head, was no longer to be felt. He was sent for the next day, when he found the woman in little pain, but very uneasy, with an anxiety so excessive as not to be described. Her pulse was small and frequent;

her eyes sunk, her countenance ghastly, her breathing laborious ; symptoms announcing the greatest danger. Nothing was to be learned by touching in the usual way ; but introducing his hand, it entered at once into a cavity, apparently of considerable extent. On the forepart he perceived a round substance, of the size, but without the solidity of a child's head ; nor was there any thing to be felt, which could assure him of a child being there." He carried his examination no farther ; and the woman died soon after. The body was opened, and the child and placenta were found in the cavity of the abdomen, entirely out of the uterus ; which he describes as being about the size of a child's head of five years old, of a lively red colour, resembling inflammation, and was the round body which had been felt *per vaginam*. The rupture was on the posterior and inferior part, and then about three or four inches long.—Pouteau attributes this patient's death to the injury done to the womb ; to the mischief which must have

been occasioned by the presence of so considerable an extraneous body among the viscera; and to the hæmorrhage.

No. XII. SAVIARD. *Observation xxv*, page 131, gives the case of a woman who had been received into the Hotel Dieu in labour: "The child, he says, presented favourably, with every appearance that the labour would be soon finished; yet the pains continued two days without effect, and ceased at once; the presenting parts receding. After two days more of suffering, the poor woman died undelivered; having been much examined, yet nothing attempted for her relief. The detached placenta was, by some of these examinations, discovered to present; the umbilical cord leading from it into the cavity of the abdomen. On opening the body, the child and secundines were found among the viscera; the feet of the child touching the stomach of the mother. The intestines were all fretted; the omentum rotten and stinking: the womb not altered in its ap-

pearance, but filled with a very considerable quantity of coagulated blood." The opening by which the child had escaped, he describes, " as being in the vagina, about an inch below the internal orifice of the womb."

No. XIII. *Journal de Medicine*, for December 1780. " A woman, seven months with child, was in the beginning of January thrown down, and squeezed between a carriage and the wall. She suffered instantly the most dreadful pains in the abdomen ; and a flooding came on which continued six weeks. After that ceased, she did not get better, but remained in a state of constant suffering ; wasting and daily becoming weaker, though she was regular in her periods, reckoning from the cessation of the hæmorrhage. She was received into the Hotel Dieu, the June following, having been seized with vomiting some days before, which never abated while she lived. When the body was opened, a collection of fœtid matter of a brown colour, was found

in the abdomen ; the omentum was dissolved ; and all the parts contiguous to the liver, having been in a state of inflammation and suppuration, had contracted adhesions with one another. The remains of a putrid child were included in these adhesions ; and the uterus, as to colour, size, and consistence, was in a natural state ; but a rent was observed on its back part, the edges of which seemed to have had no disposition to unite.”

The gradual decline of this woman's health, greatly resembles what is sometimes the consequence of puerperal fever.

No. XIV. *Journal de Medicine*, 1780.
 “ A woman about four months with child, having suffered some great violence, an uterine hæmorrhage immediately followed. The flooding stopped after some time, and the menses appeared exactly at the end of the month ; so tht it became doubtful, from the regular return of the natural discharge, whether she had been pregnant ;

but it should be remembered, that the tumour of the belly never subsided. She died five months afterwards ; and on opening the body, a fœtus was found in the cavity of the abdomen. A rupture was discernible in the uterus, through which it had escaped, that was closed and cicatrized on the internal surface of the womb, but still open on that towards the abdomen."

It is remarkable, that, in the two last cases, the functions of the uterus seem not to have been entirely interrupted by the accident : and they are introduced merely to shew, how much mischief may be caused by a substance small in itself, when it is in an unnatural situation.

No. XV. In the month of June 1778, about six o'clock in the evening, Dr. Denman was desired to visit Mrs. Bagnal, in Titchfield-street, who had been long in labour and was supposed to be in great danger. She was attended by the gentleman under whose care she had formerly been ;

and this was her fifth child. Her present labour commenced on the preceding day ; and had gone on regularly, though very slowly, to four o'clock in the morning, when she suddenly complained of a most excruciating pain in her bowels, and immediately vomited a large quantity of coffee-coloured fluid. From that time the pains of labour ceased, and there being no progress made afterwards, the Doctor was requested to see her. From the account which was given of the case, before he went into the patient's room, he expressed the strongest apprehension of an unfavourable event, and really suspected the dangerous accident which had happened. He found her in a state of the utmost debility, with very much of that appearance observed in the last stage of putrid fevers ; except that she was sensible, vehemently lamented her situation, and begged in the most passionate terms to be delivered. The head of the child presented, but was scarcely within reach of a common examination ; it was said to have receded since the time when

the pains left her. Through the integuments of the abdomen, the limbs of the child were distinctly to be perceived, so that Dr. Denman was convinced it had escaped into the cavity of the abdomen, through some ruptured part of the uterus. When he made a second representation to her friends, they were desirous of a consultation, and DR. SAVAGE was called in. From the history, and by examination, he was soon convinced of the nature of the case. Dr. Denman having no idea of any woman surviving a rupture of the uterus, under any circumstances, considered an attempt to extract the child not only as hopeless, but likely to answer no other end than that of aggravating the sufferings of the patient : but Dr. Savage being resolute in his opinion that delivery ought to be attempted, he acquiesced in the proposal of his very worthy and ingenious friend, and sat down for that purpose. In his endeavours to trace the body of the child, he soon came to the ruptured part, through which, in search of the feet, he passed his

hand into the cavity of the abdomen. The sensation given by the touch of the naked viscera, was beyond expression dreadful ; yet he proceeded and found no difficulty in the operation, till the body of the child was extracted ; but the head sticking at the superior aperture of the pelvis, whilst they were striving to bring it away, the patient expired.

On the following day, leave was obtained to open the body. The abdomen was very much tumified and inflated near the centre, where it had a disposition to burst. On making an incision through the integuments, there was a strong gush of putrid air, and then was discovered a great quantity of bloody serum in the cavity of the abdomen ; the contents of which, together with the peritonæum, had that appearance often seen in the highest degree of puerperal fever. The fundus uteri was regularly contracted, and apparently healthy ; but this being turned downwards, a large opening was perceived in that part of the

cervix which joins the uterus, directly opposite to the projection of the os sacrum ; and the placenta found in the cavity of the abdomen. The part ruptured, together with the contiguous portions of both the uterus and vagina, were of their usual degree of thickness, but in a state of gangrene.

No. XVI. A strong, healthy, and corpulent woman, aged thirty-eight years, in labour of her third child, had strong pains for twelve hours ; yet the head of the child descended very slowly into the pelvis. The pains after that time gradually abated ; and instead of the former urging throes, she had attacks of acute pain in her bowels ; became thirsty, feeble, and restless, with frequent fits of chilliness. She remained in that state for several hours, and about ten o'clock at night, told the midwife that something had snapt suddenly within her : she vomited immediately ; complained that the child had risen higher ; became faint with cold sweat and difficulty of breathing ; and expired at one o'clock in the morning,

before Dr. Denman, who had been sent for, could reach her house.

When the body was opened, much foetid air, and a great quantity of bloody water was discharged; the bladder was found distended with urine; and the uterus towards the fundus and on the anterior part, was regularly contracted. In the left hypochondrium appeared the back of the child; on the right side the small intestines, and the colon distended with air. The head of the child was firmly locked in the pelvis; but its body had escaped into the abdomen, through a rupture of the posterior part of the cervix uteri, which was in a gangrenous state. Half the placenta was in the abdomen, the remainder in the uterus, with much clotted blood in both cavities. There were signs of peritoneal inflammation, resembling what are observed in women who have died of the puerperal fever. The pelvis was small and somewhat distorted, by the projection of the os sacrum.

No. XVII. December 2, 1783, about nine o'clock at night, on the bursting of the membranes, Mrs. — sent for a gentleman of eminence who had been accustomed to attend her. She was thirty-three years of age, and the mother of five children. He found the child presenting naturally, and the pains increasing with so much effect, that about two o'clock in the morning the head was in contact with the perinæum. The pains were strong, and the patient in good spirits, so that it was expected she would be delivered in half an hour; when all at once she made a more violent outcry than usual, saying; 'She had a cramp so excruciating in the lower part of her bowels, as must kill her if it continued; being like the tearing asunder of her skin.' She raised herself upright and vomited; declaring, she had lost all her labour pains. The gentleman attending was alarmed, from a fear of the uterus having given way; and on examining *per vaginam*, no part of the child was to be felt. A number of professional men were soon

called together, who viewed the case as irrecoverable ; but from a supposed possibility of saving the child, it was agreed the patient should be delivered. This was effected with so much ease, that she expressed her *satisfaction with amazement*. The child, from a separation of the cuticle, appeared to have been dead some days. On the introduction of the hand, a transverse laceration was discovered in the posterior portion of the uterus, just above the projection of the os sacrum ; through which the whole of a full grown child had passed into the abdominal cavity. The account says, that the operator in passing his hand to reach the feet of the child, perceived the uterus, containing the placenta, contracted into an oblong form.

This patient had a difficulty in breathing from the first violent attack of spasm ; but had vomited only once ; lost very little blood ; nor had any convulsions from first to last. She continued warm, with a pulse tolerably full, for six or eight hours, when

her extremities became cold, her pulse feeble, and its strokes so rapid, as scarcely to be numbered. It was then thought she could live but a few hours ; yet on the morning of next day, her warmth had returned, her pulse had acquired firmness, and made only one hundred and twenty strokes in a minute. Means were used to support her strength ; and a camomile bag applied warm over the whole abdomen. In a few hours the pulse again sunk ; she became cold ; and expired at eight o'clock in the evening, forty-two hours after the rupture had taken place, and thirty-six from the extraction of the fœtus.—It is not said that the placenta was removed. During the whole term of her pregnancy, she had been subject to cramp, in an uncommon degree.

From some of the circumstances of this case, there was reason to have hoped a more favourable event. The patient's strength was unimpaired ; neither had she suffered from hæmorrhage or convulsions : the laceration was produced by violent and irre-

gular action of the uterus, before its substance could have been much injured by pressure between the bones of the child's head and the mother's pelvis, which was well formed: the turning and extraction of the child were performed with ease; and on the following day the symptoms were become less alarming.

No. XVIII. A woman twenty-two years of age, continued in labour of a first child, under the care of a midwife, from Tuesday the 16th of August to the Thursday following, when a physician in the practice of midwifery was desired to visit her. She was remarkably low in stature, her head large in proportion to her body; and the distortion of the spine, and of the lower extremities was to an uncommon degree. On making the usual examination, he perceived that the os sacrum advanced a considerable way into the cavity of the pelvis, and much diminished the superior aperture. The os tincæ was flaccid, and dilated to the size of a half crown;

the membranes had been ruptured more than twenty-four hours ; but no part of the child was to be felt. Her general health was good ; her bowels open ; and the bladder had been lately emptied. He prescribed an opiate and recommended giving more time.

Next morning ; the *os tincæ* was more dilated ; and one of the inferior extremities of the child just to be felt. In the evening the foot had nearly reached to the *os externum* ; her pulse was become very frequent ; and her restlessness and impatience to be delivered excessive. As no advantage was to be derived from farther delay, he proceeded to deliver ; and with some trouble brought down the breech ; the arms were delivered with difficulty ; but the distortion of the pelvis rendered the extraction of the head impracticable, without diminution ; and the great bulk of the body so blocked up the vagina, as absolutely to prevent the application of the perforator. By the efforts made to deliver,

the cervical vertibræ were beginning to give way ; it was therefore thought eligible to divide the body from the head. This being done, as the patient appeared to be much fatigued, the gentlemen attending were of opinion, that to administer an opiate, and endeavour to procure rest, would, by recruiting her strength and spirits, afford her a better chance of well sustaining the remainder of the operation.

About two hours from this time, she complained of a painful tightness across the hypogastric region, with an urgent inclination to pass urine : this she did without difficulty ; but the painful sensation in the abdomen, continued to increase, and after having for half an hour tormented her to an excruciating degree, it suddenly remitted. A considerable change soon took place in her countenance ; her respiration became short, her extremities cold, and she expired.

When the body was opened, the uterus appeared in an inflamed state, (especially at

the cervix, which was of a dark, or rather livid colour) and its size, that of the womb in the fifth month: the inflammation extended more or less to all the abdominal viscera. On the posterior part of the cervix uteri, nearly opposite to the projection of the os sacrum, a rupture was discovered, extending from thence quite through the os tincæ. The head and placenta had both escaped by this opening into the cavity of the abdomen. The omentum had formed many adhesions with the parietes of the abdomen and neighbouring viscera; and several ounces of bloody serum were found in the cavity. The body was become very putrid, though inspected a few hours after death; and the abdomen and intestines were very much distended with air. The pelvis was greatly distorted; and the superior aperture measured only two inches from the os pubis to the os sacrum.

No. XIX. A very corpulent woman, aged thirty-eight, who had born fourteen children, passed the first eight months of

her fifteenth pregnancy, without any particular complaint. In the ninth, though ailing, it was not to such a degree as to require any medical assistance ; and towards the end of her term, she was so far recovered as to be able to follow her usual business. On the evening of December the 17th, 1786, she had a fall, by which she was much bruised ; and next morning the pains of labour came on. The first part was under the management of a midwife, and in every respect natural ; the os tincæ dilating gradually, and the membranes rupturing in due time : but the head of the child not advancing, a surgeon was called at ten o'clock on the morning of the 19th, who found that the head of the child had entered the brim of the pelvis, with the face towards the ossa pubis. At this time the labour-pains were strong, at intervals of five minutes ; and the patient quite sensible. The child's head seemed fast locked among the bones of the pelvis, the surgeon not being able to move it, though he could pass his finger into the mouth. In about

half an hour, the pains ceased at once, some sudden and great change appearing to have taken place; her pulse sunk, her face became livid, and her belly flaccid: the poor woman, being now extremely restless, said she felt herself dying; and sinking low in the bed, expired before eleven o'clock.

Wednesday, the 20th, leave having been obtained to inspect the body, appearances were as follows: externally, the fundus uteri seemed to point directly forward, and to press against the navel. About a quart of bloody serum was discharged on opening the abdomen; and a large and flat coagulum of blood resembling, in form, an epiploon, was spread over the intestines. The uterus was uncommonly pendulous, and its fundus thrown so much forward, that it appeared to be at right angles with the axis of the pelvis: the right side was found in a natural state; but on the left, there was a large cavity formed in the cellular membrane, communicating with both abdomen and uterus, and containing serum, coagu-

lated blood, and the meconium of the child. By removing these, it was discovered that the uterus had been ruptured on the left side, about the beginning of the cervix; through which opening, the arm of the child had pushed out, and was lying on the outside of the uterus towards the fore part, within that hollow which had been formed in the cellular membrane. The arm of the child was stiff, which renders it probable that it died in that position; and the head rested against the os pubis, one ear appearing through the rupture. There was likewise a smaller opening on the back part into the rectum, from which there did not seem to have been any hæmorrhage.

No. XX. The case of Mrs. H—— was obligingly communicated by MR. SIMMONS, who relates, “ That she was a small ricketty woman, twenty-six years of age, and in her third pregnancy; had been delivered of her first child by embryotomy; the second was small, but born (dead) by the natural pains. August 10, 1786, early in

the morning she was taken in labour ; and after some hours of strong pains, the os tinæ being greatly dilated, the waters were discharged. The labour-pains continued the whole of that day without much advantage ; and though, during the night, she had some sleep from a draught with antimonial wine and laudanum, and the pains went on in the intervals with regularity and apparent force ; yet they did not act on the os tinæ, which remained thick, but soft and yielding. 11th, The breech was found to present, and to be wedged in at the brim of the pelvis.

In consultation with three men of eminence, it was the opinion of all, that there was no necessity to precipitate delivery, as it was thought the natural pains would, in time, be sufficient for that purpose. In the mean while it was directed, that she should be kept cool ; be touched as little as possible ; that as her pulse was full, with a degree of hardness, eight ounces of blood should be taken away ; and that glysters

should be administered. If in the evening it should be found that the pains continued strong without much effect, it was resolved to assist with the blunt hook.

When she was visited in the evening, the breech was rather lower ; and as it had been the general opinion in the morning that the natural pains would be sufficient, it was still thought right to give a little more time. At ten o'clock at night, she seemed inclined to rest, from an opiate she had just taken, therefore was not disturbed, but orders given to call Mr. Simmons if any change should take place.

About six o'clock the following morning, she was seized with violent pains in the abdomen, and immediately vomited a great quantity of coffee-coloured fluid ; and on being examined by the midwife, the child was found to have receded so much, that even Mr. Simmons, could not without great difficulty, touch any part of it *per vaginam* ; the os tincæ now feeling

thick and contracted. As from these circumstances, there was no doubt of the nature of the accident, he requested those gentlemen to meet him again, who had seen his patient the day before. Having considered the case, they agreed with him in thinking, that she should be delivered immediately. The woman was, at this time, in a profuse sweat; and the form of the child could be distinctly traced through the parietes of the abdomen.

The feet of the child being found and easily brought down, the extraction went on without difficulty till the head had reached the brim of the pelvis, where it met with so much resistance as to require the application of the crotchet. The placenta soon followed without any hæmorrhage. The patient bore the delivery well; but her pulse sunk soon after, and in five hours she expired.

The body was examined next day, in the presence of several professional men. In the

cavity of the abdomen was found a great quantity of bloody serum : the os tincæ appeared on one side to be torn from the uterus, and felt when hanging down in the vagina, like a portion of intestine. Anteriorly towards the cervix uteri, there was a large opening immediately above the ossa pubis. On the posterior portion of the uterus, which had been pressed against the projection of the os sacrum, there was another smaller aperture. The whole of the cervix uteri had a bruised livid appearance, and was distended with coagulated blood. The fundus was regularly contracted, with slight marks of inflammation externally ; but nothing particular was observable on its internal surface. At the brim, the pelvis measured nearly three inches from ossa pubis to os sacrum. Along the upper part of the ossa pubis, there was a thin bony ridge, which, when the bones were cleaned, was almost as sharp as the edge of a knife ; with two or three little pointed processes on the left side, protruding a little way beyond the sharp edge.

No. XXI, is an abstract of the case published by Mr. Goldson.

Mrs. Wilkins, a large woman, much used to laborious exercise, about thirty-six years of age, inclined to be lusty, of a constitution naturally healthy, was, August 19, 1786, about six o'clock in the evening, in labour of her fourth child. Her former labours had always been lingering, but had terminated without more than ordinary assistance. During the present pregnancy she had not been able to move with so much ease as with her other children, complaining of much pain in the left hypochondrium.

The pains increased; the os internum dilated; the membranes broke; and the head of the child was found to present: but as Mr. W. the person employed, could only reach it with the point of a finger, its particular situation could not be ascertained. The child's head advanced by slow degrees; nor did it seem to be much engaged in the

pelvis. The patient was seized with the cramp in the left leg and foot, which extended to her belly on the return of each pain. During a severe pain, she cried out most vehemently, oh the cramp ! the cramp ! which she afterwards said, she believed to be in her womb : a discharge of blood from the vagina soon followed. The pains now abated in their strength, and were succeeded by such as had the appearance of colic ; her pulse was full and quick : after some time she complained of thirst, vomited frequently, was restless, and felt great pain when the hand was applied to the belly. The head of the child had receded, nor was any part of it to be felt : there was no return of labour-pains in the evening, On the following morning, (the 20th) it appeared that she had passed a very restless night, with vomiting and great thirst. It was likewise discovered that the urine came away involuntarily. About noon she complained of pain in the region of the pubis ; her face was covered with a cold sweat ; she had great anxiety, thick and short breathing,

intense thirst, and continual efforts to vomit: her pulse rapid and moderately full. Mr. W. proceeding to examine, had no difficulty in passing his hand, and felt a moveable tumor on the posterior part, (the contracted uterus, as appeared afterwards) and his hand in contact with the intestines. Having brought down the feet of the child, some exertion was necessary to disengage the breech; but the head followed with ease: as did the placenta, which was likewise in the cavity of the abdomen.

This woman died the 23d of August; and on opening the body, the appearances were as follows: an inflamed peritoneum, in some places beginning to sphacelate; intestines distended with air, the coats tinged with yellow, and inflamed through their whole extent; and for the most part connected with each other by slight adhesions, with spots interspersed of beginning sphacelation: the omentum contracted and inflamed; a great quantity of bloody serum

in the cavity of the abdomen ; the whole exhibiting an appearance similar to what has been observed in those who have died of puerperal fever. The uterus was contracted according to the time from the delivery ; and without its appendages found, except the left ovarium. The os internum and cervix uteri uninjured, and contracted so as with difficulty to admit more than two fingers : the vagina was thin ; and lacerated close to its attachment with the uterus, nearly through one half its circumference. The bladder was ruptured on its back part.

The publisher of the above history, (Mr. Goldson) gives it as a case of lacerated vagina : he has taken much pains likewise, to prove that of Mrs. Manning to have been one of the same kind ; and to establish as the criterion of such cases, “ the placenta being in the cavity of the abdomen.” What practical inference he intended should be drawn from this being granted, I do not perceive ; since the means recommended in these observations will equally apply in the

lacerated uterus or vagina ; if the child is in the cavity of the abdomen.

No. XXII. A negro woman of the island of Jamaica, who was well formed, and had born three children in the natural way ; when in labour of the fourth, was so impatient under her pains, as to be considered by her neighbours as delirious, though her sufferings did not appear to them more than commonly severe ; but so violently did they effect the woman herself, as to induce her to make a long incision on the left side of her belly with a knife, part of the blade of which had been broken off ; and so deep as to divide the skin, muscles and uterus, and even to wound the left hip of the child. The opening was nearly in the direction of the *obliquus descendens* muscle, and so considerable that the fœtus was immediately forced out upon the mat on which she lay ; where it was found, by a midwife who had been called to her assistance, together with a great portion of the intestines. She tied the navel-string, returned the bowels into

the abdomen ; and without extracting the placenta, sewed up the wound in the way practised on dead bodies.

DR. MORTON, an able practitioner, was sent for as soon as possible, and saw her about three hours after the operation. He considered the mode in which the wound had been sewed up as improper ; had the stitches divided ; directed the parts to be washed with warm water ; and the bowels to be cleansed from the straws and sand which had adhered from their lying on the mat. He easily extracted the placenta, replaced the intestines, and brought the lips of the wound together, by the interrupted suture. She had lost a great quantity of blood, and was put to bed speechless, without any pulse at the wrist. Her speech she recovered the following day ; but had a degree of fever some days longer, with very little lochial discharge. From that time she went on well, and was able to sit up at the end of five weeks ; had strength enough to walk in a fortnight more ; and in three months was perfectly recovered.

Her mistress parted with her soon after this ; but Dr. Morton, to know the remainder of her history, applied for information to a surgeon on the plantation to which she was removed. He received for answer, that she had been regular in her menstruation, from the time she had been under his inspection ; had again become pregnant ; and if she had not been carefully watched, would have chosen to repeat the operation ; having declared her sufferings from that, to have been trifling, when compared with the pangs of child-bearing. Her labour was natural, and her recovery perfect.

No. XXIII. The Inaugural Dissertation of M. Pistor, *exhibens factum e rupto utero in abdomen prorumpentem*, contains the history of a case which happened at Strasburg. “ The woman was forty years old, below the common size, and deformed in her limbs ; yet had born twins alive some years before. The commencement of this labour was natural ; the os tincæ dilating, the membranes giving way in due time, and the

head of the child presenting, so that the midwife expected a speedy delivery. In this however she was disappointed, though the pains continued. The patient complained of great weakness, yet was able in the intervals of ease to walk about the room, and had no faintings. The pains of labour became weaker and weaker, and on the fourth day, from the first attack, had entirely ceased, the head of the child being now no longer to be felt by the common mode of examination. On the attendants attempting to take her out of bed, she fell to the ground in a fit of convulsions, of which she had three returns in a short time; but recovered and passed the following morning tolerably free from uneasiness. In the afternoon a sudden change took place, her usual colour faded, her lips became pale, and her whole countenance put on a death-like appearance. She continued in a stupor for some time, and then expired, having been five whole days in labour. The abdomen had been excessively swelled from the time the pains had ceased, the tumor

falling to that side on which she happened to lie.

On opening the abdomen, a quantity of air and blood rushed out, and a fœtus was discovered in the belly among the bowels. The body of the uterus had suffered no injury, but there was a rupture of the right side of the cervix, three fingers breadth above the os tincæ, sufficiently large to allow the whole fœtus and secundines to escape; which last were found lying upon the liver. The cuticle of the child, particularly upon the face, was disposed to peel off."

The cervix uteri in the above case, gave way, I apprehend, when the great urgency of the pains abated; and those which continued and became weaker and weaker, seem to have been the efforts of the body of the uterus, by which the whole of the child and secundines were at last propelled into the cavity of the abdomen, where they were found on dissection. The child, from

the appearance of the cuticle, must have died very soon after it had passed through the rupture.

If it were necessary, a number of other authorities from the works of medical writers might be selected, to illustrate the different circumstances connected with the subject under examination: but as I am unwilling to incur in a greater degree, the imputation of prolixity, I shall close my collection of cases by short abstracts from two mentioned by Bonnetus.

No. XXIV. *Miscelan. Curios. ann. 1671*, observa. 86. “ A woman died undelivered, where the arm of the child had presented, as high as the shoulder; and on opening the body, the other parts of the child with the placenta were found in the cavity of the abdomen, among the intestines. She had born two dead children before this: the uterus was ruptured in its lower part; and the accident was supposed to have happened in consequence of a tumor of the schirrous.

kind, which adhered to and occupied a great part of the fundus."

No. XXV. *Miscelan. Curios. ann.* 1671, observation 254. "The hand of the child presented before the head, and the woman died after having been four days in labour. The body of the child was wholly out of the uterus, which was ruptured on the left side; the head and arm remaining confined between the ossa pubis and cervix uteri. On the left side, was a round hard tumor extending to the cervix."

THE uterus may be ruptured by external violence at any period of pregnancy; but if we consider attentively, all the circumstances connected with it in the latter months, we shall at once perceive that the *gravid uterus* is not likely to suffer laceration by its own action, while the membranes of the fœtus remain entire. For in the natural position of the child in utero, the limbs are generally disposed in

a manner as compact as the figure of such parts will admit ; and while the *liquor amnii* is retained, every inequality is completely filled up. But there are frequent deviations from the most commodious disposition of parts : and it will often happen that the knee, the elbow, the shoulder, or even the head, may become offensively prominent, by being thrown out of the oval outline. If this inequality cannot be reduced into form by the first efforts of the uterus, after the discharge of the liquor amnii, and these efforts be violent and irregular ; if the resistance to the descent of the child be very great, and the same portion of the uterus be repeatedly and strongly forced against some projecting part of the mother, on the return of every pain ; if the thickness of the organ can be diminished by stretching or rubbing, as is commonly believed, and the firmness of its texture be weakened by inflammation, ulceration, or gangreen ; then it becomes easy to suppose, that in some cases, the fibres of the uterus may at last give way, and the patient suffer this dread-

ful misfortune. A rupture, according to authors, has likewise been occasioned by polypi and other tumors and excrescences of the parts, No. XXIV, XXV, which by obstructing the passage have prevented the uterus from acting on the contents, in a line according with its own axis, and that of the pelvis.

It appears from a variety of instances, that a rupture may happen in any part of the gravid uterus ; but from the nature of the uterine efforts in the act of parturition, and from the relative situation and form of the parts of both mother and child immediately concerned, there is reason to believe that it is most likely to take place in the inferior portion ; those parts which correspond with the brim of the pelvis being more particularly exposed to injury, from stretching, rubbing, and all the effects of pressure. Of cases which have occurred within my own knowledge, the fundus has never been the part lacerated : yet violent and irregular contractions of the uterus,

while there is great resistance to the expulsion of its contents, may be the cause of rupture, even of the superior portion.

Lacerations of the uterus may be either transverse or longitudinal; and in one of DR. HUNTER's elegant plates, a depression round the lower part of the womb corresponding with the brim of the pelvis is very correctly delineated, which will perhaps nearly mark the place where transverse lacerations are most likely to happen.

The expulsion of the fœtus and secundines, is chiefly performed by the action of the body of the uterus; and the first effect of the nîsus of its fibres to contract towards the end of utero-gestation, is to overcome the resistance of the cervix. The function of the cervix uteri seems to be little more than that of a sphincter; to be rather resistance than positive action; and like other sphincters, possessing a power after having been stretched, of resuming its pristine form and dimensions; provided, the parts con-

ned with it, have suffered no particular injury. When the cervix yields, the fibres at the fundus acquire more freedom and power to act; the labour pains increase, the parts of the child are gradually propelled; and the passage is so stretched, that the duplicature called *os tinæ* is at last completely unfolded and smoothed; and the once evident distinction between cervix uteri and vagina is totally obliterated. This is a fact which, though it may have been observed, has not, that I can recollect, ever been expressly mentioned, as an usual appearance; or as the effect generally produced by the passage of the child in the act of parturition.

I was, some years ago, called to a poor woman who expired before I could reach her habitation, in consequence of a sudden and excessive hæmorrhage, about an hour after the delivery of the child and placenta. Leave was obtained to open the body, which was done by MR. HOME, in the presence of DR. JOHN HUNTER and DR.

OSBORN. When Mr. Home had divided the parts, in a line from the os externum to the fundus uteri, we were surprized that not a vestige of the os tincæ could be discerned; nor any sign from surface, texture or thickness, by which it was possible to mark the termination of the cervix uteri or the beginning of the vagina; the whole forming an uninterrupted canal. Since that time, MR. HUNTER has added to his valuable collection, a preparation of the parts from another subject, in circumstances nearly similar to the above. The period between delivery and death, was in this instance rather longer than in the other, and a proportional difference was distinguishable in the thickness of the uterus, cervix uteri and vagina; yet this was in a degree so inconsiderable as to give no idea of the usual appearance of os tincæ. In his possession there is another preparation of the uterus and vagina of a woman who died twelve days after delivery; from which we may judge of the progress of uterine contraction: the

body of the uterus appears very much contracted, the cervix considerably thickened and its canal narrowed, and the os tincae as having just begun to assume its circular form, though still so open as to admit two fingers.

Should laceration happen while the inferior portion of the uterus is in the state I have described, and the os tincae merely an imaginary distinction; the parts will never be capable of resuming their usual appearance. The portion which retains its connexion with the body of the uterus preserving, to a certain degree, its contractile power, may acquire somewhat of the natural appearance, and give a form resembling os tincae to the upper edge of the torn surface; while the part below the laceration, remaining in a flaccid state, will appear like a loose membrane or membranous canal: and should the patient die under these circumstances, it will be rendered difficult to ascertain the precise situation of the rupture; or determine tru-

ly, whether it is above or below what was os tincæ.

If distortion of the pelvis should be the cause which impedes the descent of the foetus in parturition, and the uterus, acting strongly, urges the head or other hard part of the child against the bony parts of the mother; those portions of the uterus comprehended between, will become fixed points. The fundus uteri being the part which possesses in the greatest degree, a power of contraction, without being confined by close attachment to the neighbouring parts, should its exertions be violent yet unavailing in the expulsion of the uterine contents, every effort will be made with a particular strain on the fibres immediately above the fixed points. These repeated contractions will have a tendency to rend the superior, from the inferior portion of the uterus; and by squeezing its substance between the parts of the child and the bones of the mother's pelvis, are likely also to produce a disposition to in-

flamation and gangrene. The os tincæ being seldom completely dilated, before the greatest diameter of the child's head has passed the brim of the pelvis, the cervix uteri will be most exposed to this pressure, consequently more liable to laceration than any other part. This circumstance is confirmed by No. III, VI, VII, X, XI, XV, XVI, XVII, XVIII, XIX, XX, XXIII, and XXIV. It is not only from the cases I have seen, or those which I have inserted in this publication, but from many others to be found in various authors, that I conclude the cervix uteri to be the part most commonly suffering from this accident. In describing the situation of the rupture, however different the modes of expression, they seem generally to refer to the cervix uteri : *versus pubem—inferius uterum invenimus laceratum—et ruptum illum ad ilion dextrum, prope cervicem—cujus partem inferiorem paula supra internum os versus posteriora ruptam invenit—versus cervicem—in uteri collo non procul ab orificio interno, &c.* Such is the usual language

of medical writers, at different periods, on the subject of ruptured uterus ; who likewise seem to have considered the portion, which comes in contact with the projection of the os sacrum, as that which is most frequently injured. The risk of such an accident happening, may sometimes be increased by peculiarities in the structure of the bones composing the pelvis ; as in No. XX, and in a case that occurred in the London Hospital, of which however I have not been able to learn the particulars.

It has likewise been supposed that the texture of the uterus may be weakened by frequent pregnancies : and there is some reason to believe that very corpulent women are more in danger of this accident than others ; from the belly being pendulous, and the fundus uteri thrown forward, during pregnancy, by the load of fat about the omentum and mesentery. The axis of the uterus as it respects that of the pelvis, may be so altered by such causes, as

to be nearly at right angles (No. XIX); by which the child, during the action of the pains, will be forced against the projection of the os sacrum or edge of the ossa pubis, in a direction very unfavourable to its expulsion. The same effect may be produced by tumor of any kind capable of impeding the progress of labour.

The longitudinal rupture of the uterus is, I believe, a more rare case than the transverse; and when not the effect of external violence, is probably occasioned by the series of muscular fibres, which surround each Fallopian tube, acting strongly at the same time; while some prominent part of the fœtus is pressed, at the instant, against that portion of the uterus where the two series of circles become tangents. Vide Dr. Hunter's plates.

If the pelvis be capacious at the brim, and early in the labour admits the head of the child to pass easily to its lower part; the os tinæ may in such a case be so in-

completely dilated, as to be pushed down before it : and should any narrowness or deformity of this inferior portion resist the action of strong pains, to so great a degree as to be the cause of laceration before the perfect dilatation takes place, the cervix uteri may still be the seat of the injury. Those cases of rupture, in which the head of the child is stated to have been very far advanced before the accident happened, have probably been of this kind (No. XII, XVII.)

If the rupture of the uterus be longitudinal, it may sometimes be continued through the os tincæ ; but I do not readily conceive how the vagina can be the first part lacerated, or how indeed it can at any rate be torn transversely, by the natural efforts during labour. Admitting however the possibility of such an accident, it cannot take place till the child's head is so far advanced as to make it more credible; that it should be detained among the bones of the pelvis, than escape into the abdo-

men. No. XII and XXI are indeed stated as lacerations of the vagina: but whatever may be the precise situation of the injury; and whether the fœtus has passed into the abdominal cavity, through a rupture of the vagina, cervix, or fundus uteri, it cannot, in my opinion, affect the point of practice which I shall venture to recommend.

Many writers have considered the fœtus as a principal agent in causing ruptures of the uterus; but I believe that must be altogether passive: for it cannot be supposed that the weak action of a child's muscles, where there is so little room for exertion, can have a power of producing an effect so very dreadful: and we learn from No. XVII, that the accident may happen, when from appearances, there is the strongest reason to think that the fœtus died before the commencement of the labour.

The uterus may likewise be torn, by attempts to turn the child *in utero*; and by

the unskilful application of instruments, in cases of laborious parturition.

The signs enumerated by authors as portending a rupture of the uterus, are too uncertain and equivocal to enable us to found on them any general rule of practice: yet I think situations may occur, in which, though the fear alone of such an accident ought not absolutely to determine, it might in some sort be allowed to influence our proceedings. A violent and agonizing pain in one particular point, near the projection of the os sacrum or arch of the pubis, would more strongly than any other symptom excite in my mind, an apprehension of impending rupture; especially if the patient was of a nervous habit, and subject to spasmodic affections, (No. XVII.) Mrs. Manning in answer to particular enquiries, constantly affirmed that, though she felt general pain affecting the whole hypogastric region, the intolerable agony was confined to a small spot near the sym-

phitis pubis ; and the patient, (No. IX) suffered in a peculiar degree, from violent and unremitting pain in the region of the os sacrum. The situation of the consequent rupture in each, as far as could be ascertained, was found to correspond with the seat of that pain which seemed so particularly to distress them.

Now, while I am writing, three cases occur to me, in which a fear of what the uterus might be liable to suffer from the long continuance of labour, would, in my opinion, justify having recourse to the usual modes of delivery, sooner than might be thought necessary under less threatening circumstances :

First ; Should a woman of a nervous irritable constitution, who either from the event of former labour, or from present examination, we know to have a pelvis very narrow at the superior aperture, have suffered long from severe labour-pains ; should these pains appear to act at one point with

peculiar agony, without the child's head entering the pelvis, or its futures exhibiting any signs that the cranium will mould into a form likely to pass ; and should to these be added cramps of the thighs or abdomen, I should dread the consequences of permitting the uterus to continue its unavailing efforts, and be inclined to advise delivery by the crotchet, as the most probable method of preserving the mother from danger.

The second ; With symptoms somewhat resembling those mentioned above, but in a patient having a pelvis differently formed, should the head of the child be so far advanced as to render the application of the forceps or vectis practicable, I think it would be allowable in this case to have recourse to such assistance.

For the third ; I will suppose a very corpulent woman with a pendulous belly, but having a pelvis well formed. The action of the uterus in labour, being in the direction of its own axis, if the fundus is

thrown much forward, the fœtus, on the return of every pain, will be forced against the lumbar vertebræ or anterior edge of the ossa pubis, in a direction very different from that of the axis of the pelvis through which it is to pass ; and the patient be exposed to suffer much pain with very little advantage. If therefore, under such circumstances, the pains should be strong, affecting a particular point, without the head of the fœtus advancing in proportion to their continuance and force, I should fear for the safety of my patient, and think turning the child and extracting it by the feet, a justifiable practice ; as being attended with less danger in a well formed pelvis, than permitting the uterus to continue its ill-directed exertions. But these being cases which do not require a hasty decision on the measures to be pursued, afford time to take the opinion of other professional men, whose advice may confirm or amend our own judgment.

WHEN a rupture of the uterus has really happened, it is generally marked by symptoms which are decisive; but being a case that occurs very rarely, these do not always, in the beginning excite either suspicion or alarm. When labour has continued violent some considerable time; if a pain expressive of peculiar agony is followed by a discharge of blood, and an immediate cessation of the throes, there is reason to apprehend this mischief, (No. IV, IX, XV, XVII, XXI.) If nausea and languor succeed, with a feeble and irregular pulse, cold sweat, reaching, a difficulty of breathing, an inability to lie in an horizontal posture, faintings or convulsions, there is still more reason to suspect the nature of the case, (No. IV, VII, IX, XI, XV, XVI, XVII, XVIII, XIX, XX, XXI, XXIII, and Mrs. Manning.) But if the presenting part of the child, which was before plainly to be distinguished, has receded and can be no longer felt; and its form and limbs can be traced through the parietes of the abdomen,

there cannot, I believe, any doubt remain, of the uterus being ruptured, (No. VII, IX, XI, XII, XV, XVI, XVII, XX, XXI, XXIII, and Mrs. Manning.) The labour-pain in consequence of which the rupture is supposed to have happened, is often described by the patients as being similar to cramp; and as if something were tearing and giving way within them, (No. IV, IX, XVI, XVII, XXI.) It has been said likewise, to have produced a noise which could be heard by the people present, (No. IX.) and we learn from Guillemeau and Crantz, and by a case which occurred to Dr. Savage, that the uterus may be ruptured by the very pain which expells the child.

When the head of the foetus is wedged among the bones of the pelvis, or an arm entangled in the vagina or os externum, the case is deprived of its two most distinguishing signs; the presenting part will be prevented from receding, and less of the child being allowed to escape by the rupture, it

will not be so distinctly felt through the integuments, (No. V, VI, XIX, XXIV, XXV.) When such cases have occurred, the patient's real situation has not always been perfectly understood till after death ; when the head of the child has sometimes been so firmly held by the brim of the mother's pelvis, as to require considerable force to disengage it, after the abdomen has been opened. In No. VI, there was no symptom which could give any alarm, till the appearance of those arising from debility ; the confined position of the foetus, preserving the viscera from great irritation.

Although the strong efforts of labour generally cease from the time a rupture happens ; yet regular but weaker pains, will in particular cases continue for some time afterwards, (No. VI, XVI, XXI, XXIII.) By these every part of the child will be expelled from the cavity of the uterus, the placenta detached and forced into the abdomen, and the womb contracted and diminished in size. For the principal power

of action being in the body of the uterus, the attachment of placenta to its inner surface, and the seat of the rupture, for the most part, in the cervix ; the contractions, which are naturally from the fundus towards the inferior portion will, in most cases, separate the placenta ; and that will follow the child through the rupture, unless, whenever the accident takes place, uterine action should cease in consequence of the woman's instant death.

It is only, I believe, from such immediate death of the mother, or under circumstances similar to those stated in page 102, that part of the child is ever found in the uterus, while the remainder has passed into the cavity of the abdomen. In the cases of rupture which have happened in our time, no one has occurred, where the constriction of the ruptured substance of the uterus round any part of the child, has prevented its escape into the abdomen ; neither do I recollect an instance upon record, except that from Hildanus, quoted in a note

by Mr. Goldson, which is merely matter of opinion : for if the action of the uterus continues while part of the child is included in the rupture, the laceration will be still enlarging by every effort, till the whole is expelled from the cavity of the uterus, (No. XXIII.) These efforts of the womb to contract, will speedily diminish its capacity above the laceration, and sometimes even that of the laceration itself; a circumstance which will be favourable to the healing process, not only by bringing the divided parts more in contact with each other, but by contributing to prevent the intestines from descending through the wound. From the same cause, when the cervix uteri is the part ruptured, the hand of the accoucheur can never pass into the cavity of the uterus beyond the laceration. No. I. appears to have been a rupture of the body of the uterus; and Rungius must have passed his hand immediately after the extraction of the child: for it is evident, from the effect which he relates to have

taken place, that the womb still possessed, to a great degree, its power of contracting.

When it is certain that the uterus is ruptured, every one must be sensible that the woman is in a state of the most extreme danger; whether we consider the importance of the viscus itself, the excessive hæmorrhage that often ensues, or the violence to which the abdominal viscera are exposed, from the pressure of a substance so bulky, and so heavy, as the body of a child at the full time. Indeed her situation is so very hazardous, that if the means to be undertaken for her relief are not speedily applied, she will soon be beyond the reach of human assistance.

The horrible expedient of making an incision through the parietes of the abdomen, for the extraction of the child, affords very little prospect of recovery to the mother. For if a rupture of the uterus is of itself an injury so generally fatal, what is the patient likely to gain by combining the dangers of

such an accident, with those of a penetrating wound that will expose the abdominal viscera? Van Swieten thus expresses himself: *Sed si considerentur symptomata pessima, quæ uteri rupturam comitari solent,—quis audebit hanc operationem tentare in ancipiti adeo statu; quæ tamen ilico institui deberet ut prodesset.* It would indeed be performing the Cæsarean section with every disadvantage; an operation which has hitherto been practised in this country with so little success, as almost to discourage our ever having recourse to it, except in the hope of saving the life of the child, when the mother is certainly dead. But even when performed with that view, it will seldom answer our wishes; and in cases of ruptured uterus, it still less promises to be instrumental in saving the infant: for after the escape of the fœtus, the efforts of the uterus to contract itself, will still be sufficiently strong to detach the placenta; and to force that, with whatever lies between the fundus uteri and rupture, into the cavity of the abdomen, (No. VI, X, XI, XII, XV,

XVI, XVIII, XXI, XXIII.) The powers of life in the child will soon be extinguished in consequence of this separation, and therefore any hope to preserve it, ought to have very little weight in determining the measures to be pursued, of which the mother should be the only object while she is alive. For I have never heard of an instance of a child having been saved, in a laceration of the uterus, whether taken away by excision or extraction.

IT is not however sufficient, that an attempt is made to check unfeeling boldness, if there is not likewise an endeavour, to avert the consequences of a too cautious and timid mode of practice. There is a passive, as well as an active inhumanity; which though less shocking in appearance, is not less dangerous in its effects. A rupture of the gravid uterus is confessedly a case, which the experience of the past, and of the present time, has rendered almost hopeless: yet it might be worth enquiring,

whether the instances of recovery would have been so very rare, had we not too generally given way to an almost criminal despondency. The history I have related is decisive as to the possibility of recovery ; and those which I have cited, though not so conclusive as I could wish, contain each of them some circumstance, which may encourage us to hope for a more favourable event, by a change in our mode of practice.

The objections to delivery in cases where all, or greatest part of a child, has escaped through a rupture of the uterus into the cavity of the abdomen, must principally arise from the following circumstances :

First ; From the extreme danger of the original complaint, as affording no hope of recovery.

Secondly ; From the increased difficulty of delivery, in consequence of the contraction of the uterus and natural passages.

Thirdly; From a fear that the injury already done to the parts, must be so aggravated by the introduction of the hand and the extraction of the fœtus, as to render the death of the patient inevitable.

Fourthly; From an expectation, that the constitution itself, is possessed of powers capable of counteracting the effects of such an accident.

Under the most favourable circumstances which can attend a rupture of the uterus, it must still be acknowledged a situation of the greatest danger to the patient. But while No. I, II, III, and the event of Mrs. Manning's case, obviate the first objection, by proving that it is an accident of itself, not certainly fatal, I flatter myself there are others in the collection, that may assist us in discovering those particular points, on which its uncommon mortality depends.

Many positive facts can be brought to weaken the force of the second objection.

No. I, IV, V, VIII, XVII, XXI, evince the ease with which the extraction of the foetus may in general be performed : and in No, VI, IX, XV, XX, and the case of Mrs. Manning, it was evident that the obstacles to speedy delivery, did not arise from any contraction of the soft parts, but from narrowness of the pelvis at the brim. In case No. VII, the extraction of the child was not attempted, till the third day after the uterus had been ruptured ; when, it may be supposed, the passages had acquired almost their greatest degree of resistance, as far as depended on mere contraction. But though the gentleman who delivered the patient, found some difficulty in passing his hand into the cavity ; yet it was happily performed, and the woman bore the delivery well. I shall only add, what is, in my opinion, conclusive against this second objection ; that I have never heard of a case of ruptured uterus, where the man-midwife was foiled in his attempts to deliver. Let it however be understood, that when I speak of the ease with which deli-

very may be performed in such cases, it is always upon a supposition, that the accident has not been the effect of external violence in the early periods of pregnancy, but of the efforts of the uterus itself, at or near the full term; which efforts may already have either dilated the parts, or excited in them a disposition to yield. For no person acquainted with the structure and physiology of the uterus, could hope to succeed by forcible attempts to deliver through the natural passage, in such cases as No. XIV, or XV.

“ The fear of rendering a situation of extreme danger, irremediable,” which is the third objection; and the inhumanity of increasing the sufferings of a fellow-creature by endeavours which are painful, without promising to be successful; would, if well founded, powerfully persuade against the practice I wish to recommend. But if La Motte extracted the foetus No. V, *en moins d'un Miserere*, Peu, No. VIII, *d'un seul tour de main*; if we learn from No.

XVII, that the patient expressed her “ satisfaction with amazement at the ease with which she was delivered ;” and by No. XX, and XXI, and Mrs. Manning’s case know, that there was no difficulty in the introduction of the hand, nor much force necessary in extracting the child : if it does not appear that, in the patients delivered, not even in No. VII, any symptoms occurred afterwards, which could be fairly attributed to the force used for that purpose ; it will, I think, be allowed that the third objection is in some sort answered, both as to the danger and inhumanity of the practice. The earnestness with which women entreat to be delivered, should likewise be allowed some influence in this, and in all cases of such emergency ; since wherever recovery is possible, it is of the highest importance to render the mind of the patient easy and satisfied ; and every person of experience in the practice of midwifery must be well apprized, that no woman will believe herself to have a chance of recovering, while she knows that a dead child remains within her body.

Besides the objections which have been made to delivery, on the score of pain and danger to the woman, it has been suggested that the constitution, if not farther disturbed, might be able to accommodate itself to this unusual situation of the fœtus ; or by some extraordinary exertion of its powers, after a great change produced in the soft parts of the child, direct those which remained and could not be altered, where they might be expelled from the body of the mother, with less danger to her life than would have attended the extraction of the whole fœtus, soon after the original accident.

Many examples have been collected by DR. GARTHSHORE, tending to establish the possibility of such a process. But with the greatest deference for my friend's opinion and judgment, I am still unconvinced, as to the inference he seems to wish should be drawn, from the instances he has cited ; and should deem myself unpardonable if, in cases similar to that of Mrs. Man-

ning, I were to leave a full grown fœtus in the cavity of the abdomen, from a hope that the constitution could ever, either accommodate itself to so large a mass in a situation so unusual, or be able to expel it, without the safety of the woman being endangered. Nature, I am willing to grant, has wonderful resources, with powers, the extent of which we shall never fully comprehend; but as we are likewise ignorant of the particular circumstances which direct their application, it becomes our duty rather to pursue rational means, than to encourage visionary expectations. To heal a laceration of the uterus, through which a child has been carefully returned and extracted by the natural passage, seems a process more easy to be effected by the powers of the constitution, than either to enclose, in a sac or crust, a fœtus that has been allowed to remain in the abdomen of the mother; or to discharge it peaceably after many years, by some unnatural outlet.

None of the histories which give an account of bones discharged by the anus, or from abscesses, can be admitted as unequivocal proofs of the fœtus having been originally in the cavity of the uterus. Of the few which afford ground for such a supposition, the evidence is merely presumptive; and of the others, there can be no doubt but they were extra-uterine conceptions; which possessing the principles of life, readily form adhesions with whatever part of the mother, they happen to be in contact; and whether included in the ovaria, Fallopian tubes, or abdominal cavity, derive their nourishment from her body. The increase of these conceptions being very gradual, and from beginnings extremely minute; the fœtus enveloped in its own membranes, and presenting a smooth surface to the contiguous parts, produces very little irritation till it offends by its bulk. The first effect of this stimulus will be such a degree of inflammation, as by producing adhesions, may probably serve to connect the ovum more firmly with the adjoining viscera;

and enable the woman to support its weight with less inconvenience. Some circumstance powerful enough to extinguish life in the fœtus, occurring at last, it is rendered a mere extraneous substance within the mother's body ; and thereby becoming more offensive, the constitution will be particularly excited to expel a mass, now no longer immediately connected with it. Ulceration is the method which nature employs for this purpose ; and after the soft parts have been altered, the bones are guided by that process, to the nearest external surface, to the skin, or to the intestinal canal, which is external with respect to the cavity of the abdomen. The adhesions which have been formed with the peritoneal lining of the abdomen or covering of the intestines, will determine the pointing of the abscess, by which the bones of the fœtus are at last to be expelled, if the powers of life in the patient do not sink, before that can be performed. If this is the melancholy progress of extra-uterine conception, life on such terms would be a wretched purchase. Har-

passed through many painful years by a variety of suffering ; by inflammation, ulceration and incurable sores, the woman drags on a miserable existence, infinitely more to be dreaded than death itself.

But in cases of ruptured uterus, we have not even the probable chance of a termination like the above. For if we attend to the first stages of extra-uterine conception ; its minute beginning and gradual increase ; its smooth investing membrane, and the firm adhesions by which it is connected to the neighbouring parts ; and compare these with the nature and importance of the gravid uterus near the full term ; the violence it must sustain from a cause capable of rending its substance ; the bulk, weight, and form of the fœtus ; and its unconfined situation, surrounded by parts very susceptible of injury, the most sanguine and strenuous advocate for a dependence on the resources of Nature, will hardly venture to flatter himself with a similar event from circumstances so complicated, and so widely

different. Were we even encouraged to hope that cases of rupture could, by leaving them to Nature, be brought to terminate, as the greatest number of recorded extra-uterine conceptions have done ; would it be either wise or humane to reject the possibility of restoring the patient to perfect health, for the bare probability of securing to her, a few comfortless years ? But the truth is, that in every case of ruptured uterus, where the child was not extracted, the mother died.

HAVING endeavoured to invalidate those arguments, which are urged with most plausibility against the extraction of the child, in cases of ruptured uterus, I shall proceed to point out the pernicious effects, which its remaining in the abdomen must inevitably produce.

The increased susceptibility of irritation, which prevails in a state of pregnancy, the pressure which the abdominal viscera sustain from the growth of the uterus, and resist-

ance of the integuments, and the action of the uterus and muscles of the abdomen in the severe pangs of labour, will all dispose the peritoneum to be more readily affected by any new irritating cause. It is easy therefore to imagine, how much parts very susceptible of irritation must be liable to suffer, from the violence done to the uterus, by an action capable of lacerating its substance ; and by the presence of an extraneous mass so considerable, as a child near the full time ; that is not only out of place, but being unconfined, must follow the motion of the woman's body, and by its mere weight, rub and bruise the tender viscera among which it lies.

The fever which sometimes seizes lying-in women, affords a strong proof of the particular disposition of the peritoneal coat to inflame at that time. Originating from some cause too inconsiderable or too subtle to be readily detected ; it is yet so active as frequently to destroy the patient very speedily. The dissection of the bodies of those

who have died of this disease, shews how violently the abdominal viscera are affected; particularly the intestines, mesentery and omentum : every degree of mischief, from the slightest inflammation to a complete gangrene, being sometimes evident in the same body. Besides other appearances of inflammation on the intestines, they are found adhering in different places, as if glewed together, and their surface sometimes covered with thick matter. The omentum is often almost wasted away; what remains having become black and putrid. In the cavity of the abdomen a considerable quantity of serous fluid is generally found; sometimes mixed with pus, and having pieces of a thicker matter, like curds, swimming in it: this fluid varies in quantity and colour, and is commonly putrid. Whether these diseased appearances in the abdomen are cause or effect, producing the fever or produced by it, they equally prove the strong disposition, which the parts have to inflame in a puerperal state; and make it more easy to conceive

the dangerous consequences, which must arise from the body of a child remaining among the bowels, then so peculiarly susceptible of every species of irritation. In fact, the symptoms and appearances in a woman who has survived a rupture of the uterus some days, very much resemble those arising from puerperal fever.

In all cases of ruptured uterus, where the patient survived the accident even but a few hours, if the body was examined after death, there were discovered evident proofs of peritoneal inflammation. In No. XVIII, a very short space of time could have intervened, between the laceration of the uterus and death of the woman ; and in No. XX, between the accident and delivery : yet in both, slight signs of inflammation appeared on the uterus and intestines. Striking marks were to be discovered in No. XVI, though life had not continued more than three hours, after the rupture was supposed to have taken place. In No. IX, the symptoms which prevailed for some days pre-

vious to the death of the patient, bore an evident resemblance to those which attend puerperal fever; and the appearances on opening the body, were the same that are observed in women who have died of that disease. Though the child seems to have remained ten or twelve hours in this woman's abdomen, many of the threatening symptoms abated during the first and second days after delivery; and had not those indicating peritoneal affection continued to increase, there might have been ground to hope a less fatal termination. Something similar appears to have happened in No. XVII, where the child was three or four hours among the viscera; but in that case the placenta was not removed, and she soon sunk under her complaints. Dr. Denman has remarked "how strongly the appearances in No. XV, resembled those which have been described as characterizing the child-bed fever"; his patient having survived the rupture about fifteen hours. From Pouteau's case, No. XI, it may be presumed, the child had been upwards of twenty

hours in the abdomen of the mother ; and he describes the uterus, (peritoneal covering) as, “ being of a lively red colour, resembling inflammation.” No. XXI, exhibited striking marks of inflammation, through the whole extent of the intestines, omentum, and peritoneum, with adhesions and a tendency to sphacelate ; and Mr. Goldson remarks, “ that the viscera had a resemblance to what is generally observed in those, who have died of puerperal fever.” By Saviard’s account, No. XII, the patient seems to have survived two days with the child in the abdomen ; and his expression is, “ That the intestines were fretted (*tous rongez*) and the omentum rotten and stinking.” The woman, No. VII, was not delivered till the third, and lived to the twenty-sixth day after the rupture had taken place ; so that the appearances on dissection were not, strictly speaking, those of inflammation, but of its consequences ; the intestines being glewed together ; every where adhering to the neighbouring parts ; and in some places compacted into a

firm mafs. The hardnefs, tenfion, and fore-
 neffs of the abdomen of which La Motte's
 patient complained, when he firft faw her,
 are beft accounted for by fuppoſing the
 peritoneum to have been injured, in confe-
 quence of the child having remained five
 or fix hours among the viſcera. Though
 in No. VI, there were no fymptoms that
 particularly pointed out the nature of the
 complaint, or that could excite much fear
 for the woman's ſafety in the beginning;
 yet thoſe which immediately preceded her
 death, could be referred to peritoneal in-
 flammation alone. The only circumſtan-
 ces in Mrs. Manning's caſe which requi-
 red medical treatment, were ſuch as ſeemed
 to ariſe from a ſimilar cauſe. Although
 the woman, No. XIII, lived five months
 after the accident, by which the uterus ap-
 pears to have been ruptured; yet ſhe loſt
 ſtrength, and her health declined daily from
 that time: and on inſpecting the body after
 death; the fœtid matter found in the ab-
 domen, the waſted omentum, the adhering
 viſcera, with the marks of former inflam-

mation and suppuration, all indicated that the peritoneal coat had been principally affected.

Such are the effects we might reasonably expect, and such are actually produced by the body of a child being allowed to continue in the abdominal cavity, even for a very short time : and from these examples, I hope little doubt can remain, of the necessity of applying proper means to obviate consequences so truly alarming. A very respectable writer, holding an opinion somewhat different from mine on the present subject, says : “ If ever a woman has a chance from Nature, it must be where no inflammation has preceded the accident ; and by the prevention of such irritation as is capable of exciting this.” But let him reflect a moment on the circumstances I have stated, and he must, I think, be convinced, that to leave a full grown fœtus among the viscera of the mother, is not a measure likely to prevent irritation, or to increase the chance of her recovery.

ABSTRACTED from the particular injury, which the abdominal viscera themselves are liable to sustain, the wound of the uterus can have little disposition to unite, while the body of a child is acting on all the surrounding parts as a constant and powerful stimulus : for the advantage which might be expected from the tendency of the uterus to contract and bring the divided parts more into contact, when released from the child and secundines, seems in a great measure defeated by any extraneous substance remaining in the abdomen. No. XIII and XIV, may be considered as proofs of the effect of such a cause ; since in the whole five months, the time those women survived the accident, the healing process had never begun in No. XIII ; and small as the embryo must have been in No. XIV, it had prevented the union of the peritoneal portion, though the uterine part had healed. A knowledge of this fact, will point out the necessity of bringing away the placenta, after having extracted the child ; as from

its bulk, and tendency to become putrid; it may be supposed capable of producing the most serious consequences. Irritation, inflammation, and all the dire effects of putrid absorption, are to be apprehended from its remaining among the viscera; and our endeavours to snatch the patient from impending danger, must be considered as incomplete, until the placenta is removed.

The most favourable situation for the efforts of nature to produce adhesions, and carry on a process for relieving the constitution of such a load, is undoubtedly when the rupture of the uterus has been the effect of accident; the powers of the constitution being unimpaired, and equal to the greatest exertions. Yet in No. XIII and XIV, under such favourable circumstances, with this farther advantage, that the woman in one case was in the seventh month, in the other only in the fourth, and of course the children small; nature was unequal to the task, and after many efforts sunk under the attempt in a few months:

hence we may conclude, how little hope remains of a happy termination, when the foetus has attained its full growth, and the constitutional powers of the mother are weakened and deranged, by a tedious and severe labour. But more chearful expectations may be indulged, if the cumbrous bulk of a dead child is speedily and gently removed from among the viscera. Nature, when so relieved, is not only capable of restoring the patient to tolerable health, but to the complete possession of all her faculties: the uterus seeming to have regained the power of discharging its functions as perfectly, in the case of Mrs. Manning and of the Negro woman, No. XXII, as if it never had been injured.

In enumerating the signs of a rupture of the uterus, I have mentioned, as the most decisive, the retrocession of the child, and the ease with which the form of its limbs can be traced through the integuments. If previous to the accident, the head has been so wedged among the bones, or any other

part so entangled in the passage that it cannot recede, we shall be reduced to the necessity of forming an opinion of the case, from symptoms which do not so clearly indicate the nature of the mischief. These may sometimes be so mild at first, as to give no immediate alarm ; but in general, they will be sufficiently marked to determine the dangerous situation of the patient ; and to point out the propriety of assisting her, by judicious attempts to deliver.

Should it be allowed, that I have made a proper selection of cases to illustrate my opinion on this subject, and that I have reasoned justly from the facts which they contain, I think the following conclusions may be admitted :

First ; That a rupture of the gravid uterus, which has even allowed a fœtus to pass into the cavity of the abdomen, is not to be considered as a case absolutely hopeless.

Secondly ; That no relief is reasonably to be expected from any power which we can suppose the constitution to have over a fœtus in such circumstances.

Thirdly ; That the danger of such a case is not solely from the injury done to the uterus itself ; but is greatly increased, by that which the viscera must sustain, from the child remaining in the cavity of the abdomen.

Fourthly ; That the danger will generally be in proportion to the time the child is suffered to remain among the viscera, and to the susceptibility of irritation which then prevails in the constitution.

Fifthly ; That delivery affords the only prospect of recovery to the patient ; and should therefore be effected as soon as the circumstances will permit : and that by delivery is to be understood, the extraction of both fœtus and placenta.

Although these inferences may be fairly deducible from what has been said, yet circumstances will frequently arise, in a case of such complicated danger, which will baffle all reasoning from general principles : for when rupture is the consequence of some violent disease having affected the substance of the uterus itself, no advantage is to be expected from any measure that can be tried. When the accident is attended with excessive hæmorrhage, death too generally happens before it is possible with any certainty, to determine the nature of the complaint ; and even if the hæmorrhage should not be so violent as to destroy the patient very suddenly, it may be so considerable as, by greatly diminishing the powers of life, to make her recovery impossible.

Other causes existing in the constitution, may contribute to render such an accident peculiarly fatal. The body being at this time in a state very susceptible of stimulus, whatever acts violently on the nervous system, may have the power to produce effects

suddenly destructive of life ; and symptoms of great debility coming on after a sudden cessation of strong labour-pains, ought always to be considered as indicating danger.

Thus, actuated by a strong sense of professional duty, have I ventured, in cases of ruptured uterus, to combat what appears to me a visionary confidence in the powers of the constitution ; and endeavoured to vindicate *the extraction of the fœtus*, from the charge of inhumanity, as founded on the pain, difficulty, and danger of the practice. It is my wish to rouse the supine, and embolden the timid spirit ; and impart to the doubting mind such a portion of that conviction which so forcibly strikes my own, as may influence others to try in future the success of speedy delivery ; since it does not appear, that any thing has hitherto been gained by a different conduct.

It may, perhaps, be urged against the practice I have presumed to recommend, that the histories of recovery are too few to

justify its obtaining a preference to other modes proposed. This objection ought, however, to have no weight against the established possibility of a favourable event, when the fœtus has been extracted ; unless positive and unequivocal proofs can be produced, of similar success in cases which have been trusted wholly to the operation of the natural powers. But may not this deficiency of successful cases be imputed to the gloomy idea of inevitable death, that has too generally been annexed to this accident ? which, by destroying hope, has checked that ardour of inquiry and enterprize which should lead to information, exertion, and success ; has deprived us of the aid of experience ; and of the advantages that might have been derived from a comparison of facts and observations.

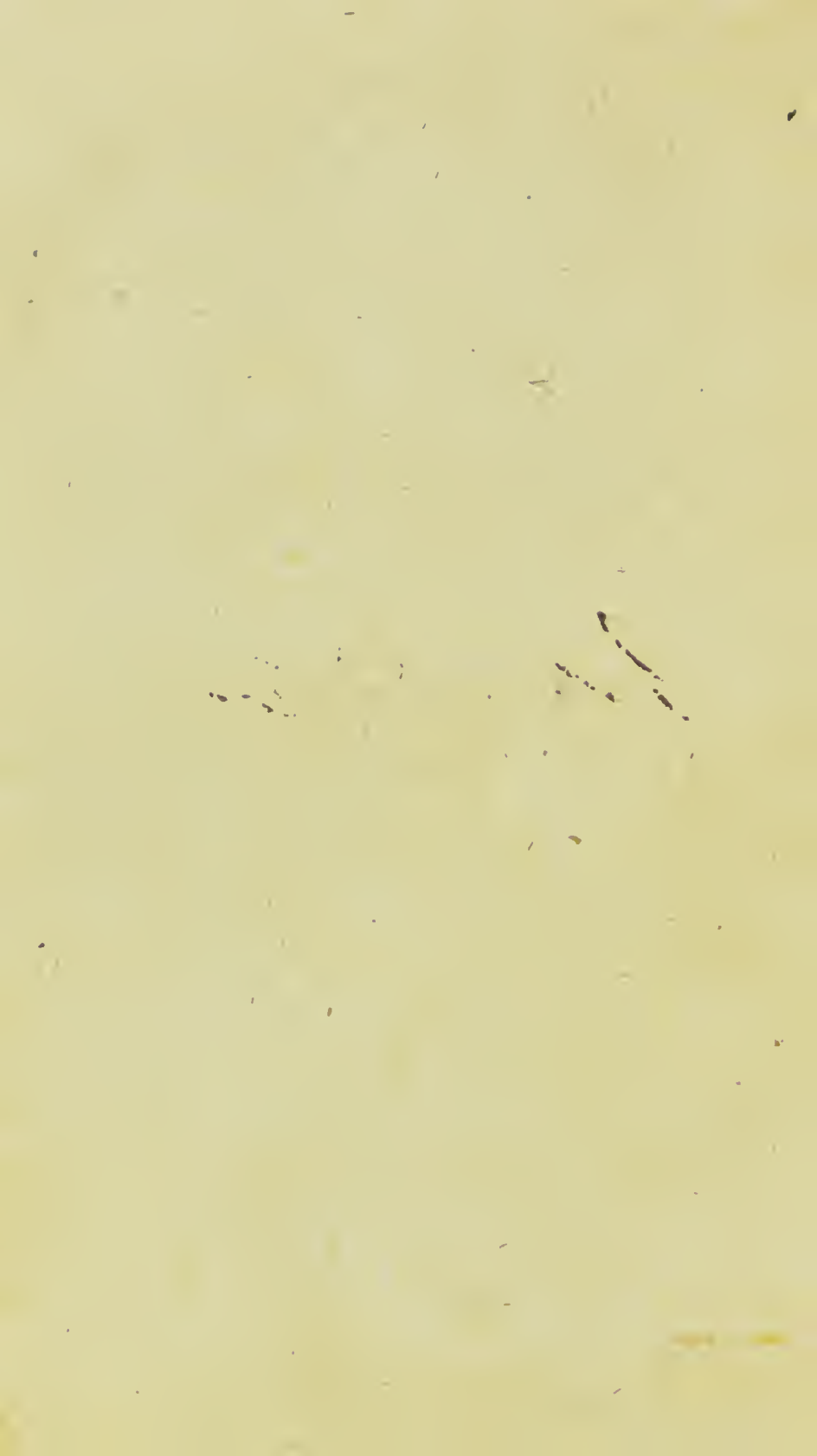
It is, however, a source of comfort that, amidst such accumulated danger, there still remains a possibility of recovery ; and as this seems in a great measure, to depend on the speedy removal of the fœtus and secundines

from among the viscera, it becomes of the highest importance, to be able soon to determine, that the uterus is actually ruptured. It was my design, to bring into one view all the circumstances that could be collected, which were likely, on such occasions, to assist in directing our judgment; but I perceive, with regret, that these are insufficient to establish the absolute certainty, which I wish could be obtained, in a matter of so great consequence.

Yet my intentions will not be wholly frustrated, if, by shewing that lacerations of the uterus, happen more frequently than has generally been supposed, I should be instrumental in directing the endeavours of ingenious men, to a careful investigation of the causes of this accident, and of the symptoms which principally characterize it. Attention to these points, will contribute to increase our knowledge, to inspire hope, to produce more decision in the measures to be adopted for the relief of the sufferers, and to give more efficacy to their application.

But whatever may be the event, where the fœtus has in such cases been extracted by the natural passage, one consolatory reflection will still remain, that if this expedient has failed to preserve life, it has superseded no mode of practice, which promised a chance of safety to the patient.

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